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ABSTRACT

To survey and analyze nursing resources and nursing education in Florida in order to make recommendations for future educational planning, data were gathered from the literature, state agencies, and a stratified random sampling by questionnaire of 1,921 licensed nurses within the State. The findings indicated that unmet needs for nursing services were due to both shortages in total numbers of nurses and in numbers of nurses employed as nurses. Most of the nurses were female, and racial balance was present among Licensed Practical Nurses but was missing among Registered Nurses. A decline was noted in hospital-based diploma nurses programs with an increase in the number of community college associate degree programs. It was concluded that Florida's nursing shortage must not be considered a shortage of nurses but a shortage of available nursing services and that vocational and higher education institutions should carry the major responsibility for nursing education. Specific recommendations for both nursing practice and education were made and further research needs noted. The Ed.D. dissertation was submitted to the University of Florida. (SB)

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FINAL REPORT
PROJECT NO. VTAD-5-569-129
FROM JULY 1, 1968 TO JUNE 30, 1969

A STUDY OF NURSING IN FLORIDA WITH IMPLICATIONS FOR NURSING EDUCATION

FLORIDA STATE DEPARTMENT OF EDUCATION
DIVISION OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION
TALLAHASSEE, FLORIDA

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The opinions expressed by the author are not necessarily those of the persons, agencies, and institutions who aided in the preparation of the report.

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DIVISION OF VOCATIONAL, TECHNICAL AND ADULT EDUCATION
TALLAHASSEE, FLORIDA

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A STUDY OF NURSING IN FLORIDA WITH IMPLICATIONS FOR NURSING EDUCATION

College of Education
University of Florida
Gainesville, Florida

Marshall W. McLeod

The project reported herein was conducted persuant to a grant from the Division of Vocational, Technical and Adult Education, Florida State Department of Education. Contractors undertaking such projects are encouraged to express freely their professional judgments in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent the official position or policy of the Florida State Department of Education.

CONTENTS

The report of this project consists of the following items: fifteen copies each of these preliminary pages, dissertation abstract, and copies of the dissertation manuscript all bound together. In addition, the fifteen volumes are accompanied by one copy each of: an 80-80 computer printout of all survey data used in the report; one copy each of computer runs 1 and 2; and a key for reading these computer printouts.

SUMMARY. . . . . Refer to the Abstract, pages 1-C - 1-D
INTRODUCTION . . . . Refer to Chapter I, pages 1-32
METHODS. . . . . Refer to Chapter I, pages 1-32
RESULTS AND FINDINGS . . . . . . Refer to Chapter VI, pages 226-250
CONCLUSIONS AND RECOMMENDATIONS. . . . . Refer to Chapter VI, pages 226-250

For more specific items, the reader is directed to the dissertation indexes, pages i - xvi.

Abstract of Report VTAD-5-569-1299

A STUDY OF NURSING IN FLORIDA WITH IMPLICATIONS FOR NURSING EDUCATION

By

Marshall W. McLeod

July, 1969

The purpose of the study was to examine the nursing resources of and the provision for nursing education of Florida with the intent of formulating recommendations for the development of nurse education within the State.

The following objectives were sought in the study: to generate a profile of nurses in Florida, and to analyze how their number, characteristics, and location related as nursing resources; to examine the present and future need for nursing personnel within the State; and to formulate, based upon implications drawn from the data thus gathered, recommendations for the betterment of nurse education for Florida in order that more and better prepared nurses help alleviate shortages in nursing services.

Data for the study were gathered from the following sources: from previously published data in the literature, from State agencies including the Florida State Department of Education, and from a stratified random sampling by questionnaire of licensed nurses within the State.

The findings of the project indicated unmet needs for nursing services due to both shortages in total numbers of nurses, and shortages in numbers of nurses employed as nurses. Indicators of future pressing need were observed. Potential and the need for expansion of the State's nurse education system was found to exist. Indicators of need for change in both nursing practice and nurse education were found to exist. Specific recommendations for both nursing practice and education were made. Suggestions for further research were noted.

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This dissertation is dedicated to
practicing nurses whose selfless
contributions to mankind transcend
all measures of material reward.

ACKNOWLEDGMENTS

It is impossible in this short space to enumerate all those persons responsible for the writing of this study. A special debt is owed to the two thousand nurses of the State who took extra time and effort to respond to the questionnaire survey. Without them the core of this study would be missing. The interest expressed by these practitioners is a measure of the quality of Florida's nursing profession.

Acknowledgment must be made to the people of the State of Florida who through their several agencies provided support for the study. The Florida Advisory Council, Inc., of the Florida Regional Medical Program; the Vocational, Technical, and Adult Division of the Florida State Department of Education; and the Florida State Board of Nursing contributed funds and other aid. Members of the faculty of both the University of Florida and of Santa Fe Junior College contributed valuable advice and encouragement.

The writer must express a special measure of appreciation and esteem to his advisory committee. A great debt is owed the chairman, Dr. James L. Wattenbarger, for his unfailing counsel and motivating pressure. Special thanks are given to the other committee members: to Dr. Edwin L. Kurth, for his advice, knowledge of technical education, and aid in obtaining support; to Dr. Samuel P. Martin, M.D., for his special commitment to both education and medicine, and for his aid in obtaining fiscal aid; and to Dean Dorothy M. Smith for her deep insights into nursing, and for her counsel.

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Finally, the writer must extend no small measure of gratitude to his parents for their unfailing encouragement, support, and their faith in the educability of their son.

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CHAPTER I

INTRODUCTION

Purpose of the Study

The fundamental purpose of this study is to survey and analyze nursing resources and nursing education in Florida, with the intent of making recommendations for the future planning of the education of nursing personnel within the State.

A frequently overlooked means of improving nursing service is coordinated planning for the improvement of nursing education. It is imperative that nursing education keep pace with constant change in the production of health care, and with accelerating demands for nurses. Effective planning, planning which is put into practice, can help achieve these goals of supply and demand. If planning is to be valid and realistic, there must be a body of constantly upgraded data available for planners to use. It is a purpose of this study to provide some of these data.

The Practice of Nursing

The practice of nursing in Florida by Registered Nurses and Licensed Practical Nurses is defined in law. According to the law the practice of professional nursing, i.e., nursing performed by Registered Nurses, means:

"The performance of any nursing services or acts requiring observation, care, and counsel of the ill, injured, or infirm, or in the maintenance of health or prevention of illness of others, or in the supervision and teaching of other personnel, or the administration of medications, and treatments as prescribed by a licensed physician, or dentist; requiring substantial specialized judgment and skill and based on knowledge, and application of the principles of biological, physical, and social science." The practice of practical nursing is defined as: "The performance of nursing acts in the care of the ill, injured, or infirm under the direction of a licensed physician, or a licensed dentist, or a registered professional nurse; provided, however, that all such acts do not require specialized skill, judgment, and knowledge required in professional nursing" (F.S. 464.021 [3] and [4]).

Contemporary nursing as art and science is greatly removed from its ancient origins of the wet nurse and midwife. The press of contemporary social organization and modern medicine has also removed the profession far from that of Florence Nightingale in the Crimean War. For, while thousands of nurses still tend the basic needs of the ill and the infirm, others are performing duties which would astound nurse Nightingale. Nursing practice has grown in specialization and complexity; and, as the profession has grown, it has become highly diffuse in types of practice. Nursing practice has expanded into industry and education, into social welfare and administration. Nursing has grown into a highly mobile and even international force. Nursing education has become formalized in a variety of degrees and kinds of programs of instruction and learning.

Virginia Henderson has defined nursing in the following manner:

> The unique function of the nurse is to assist the individual, sick or well, in the performance of those activities contributing to health or its recovery (or to peaceful death) that he would perform unaided if he had the necessary strength, will or knowledge. And to do this in such a way as to help him gain independence as rapidly as possible (43, p. 15).

She has listed nine historical and contemporary definitions of the nurse (42, p. 2).

1. The nurse is a mother substitute, "the professional mother."
2. The nurse puts the patient in the best condition for nature to act on him.
3. The nurse is the physician's assistant in caring for the ill, preventing diseases and caring for those who cannot get well.
4. The nurse is a teacher of health and disease prevention.
5. The nurse is a coordinator of the services of all health care workers; she manipulates the environment, including its machines and trains nursing personnel with less preparation than her own.
6. The nurse enables the patient to make effective use of the health resources available to him.
7. The nurse applies nursing science for the betterment of mankind.
8. The nurse helps the patient carry out those activities contributing to health, or its recovery, or to a peaceful death that he would perform unaided if he had the will, the strength or knowledge, including the treatment prescribed by the physician. (The nurse is the patient's alter ego or helper in carrying out daily activities and prescribed treatment).
9. The nurse is a substitute for the doctor, a surrogate or subaltern.

Henderson stated that both the emotional and physical domains of the individual are so interrelated that the nurse must relate to both in order to promote health in the individual. "The nurse is, and should be legally, an independent practitioner and able to make independent judgments as long as he, or she is not diagnosing, prescribing, treatment for diseases, or prognosis for these are the physician's functions" (45, p. 16). She also wrote that the nurse's main role is that of a helper: "I see nursing as primarily complementing the patient by supplying what he needs in knowledge, will, in strength to perform his daily activities and to carry out the treatment prescribed for him by the physician" (43, p. 21).

The American Nurses' Association in 1955 approved a general definition of nursing.

> The practice of professional nursing means the performance for compensation of any act in the observation, care, and counsel for the ill, injured, or infirm, is in the maintenance of health or preservation of illness of others, or in the supervision and teaching of the personnel, or the administration of medications and treatment as prescribed by a licensed physician or dentist; requiring substantial specialized judgment and skill and based on knowledge and application of the principles of biological, physical, and social science. The foregoing shall not be deemed to mean individual acts of diagnosis or prescription of therapeutic or corrective measures.
>
> The practice of practical nursing means the performance for compensation of selective acts in the care of the ill, injured, or infirm under the direction of a registered professional nurse or a licensed physician, or a licensed dentist; and not requiring the substantial specialized skill, judgment, and knowledge required in professional nursing (5, p. 1474).

Professional and practical nurses constitute a diverse group. They are employed in work settings which include: hospitals, nursing homes and extended care facilities, physicians' and dentists' offices, private duty situations, schools, industry, public health, and education. The work periods of nurses include all hours. They are in civil and private employ. They work in an expanding range of nursing capacities which includes hospital directors, assistants, supervisors, head nurses, staff nurses, nurse anesthetists, and other specialties; nursing home nurses; public health administrators, consultants, supervisors, and staff nurses; professional and practical nurse educators; occupational and industrial nurses; private duty nurses; office nurses in dentists' and physicians' offices; and school nurses. Nurses may be employed solely as administrators or solely as bedside practitioners; they may have combinations of responsibility. They work full time and part time. They represent a wide spectrum of formal and informal education. Their roles are both dependent on, and independent of, other health workers, contingent on the particular situation. They are of varying licensure status: active, inactive and lapsed. As an occupational group, they are an important and vital component of our contemporary health system.

The importance of nurses in our society can hardly be emphasized too greatly. Nursing personnel provide services without which modern health care would be impossible.

Nurses provide a wide variety of essential services which contribute to the science and art of healing and maintenance of health. The healing and preventive benefits of medicine depend on the combined knowledge, skills, and understanding of a diverse team of specialists, whose complex of interrelated tasks cannot be effectively separated. Nurses, both professional and practical, are vital parts of this total health care team.

Nursing personnel are of several types differing in educational background and legal status. The law governing the practice of nursing and nursing education is found in Chapter 464 of the Florida Statutes (F.S. 464.011-464.24). All practicing nurses must be actively licensed by the State. Licensure is administered on a peer basis by nurses who serve as the Florida State Board of Nursing. Registered Nurses and Licensed Practical Nurses differ largely in educational background and in the nature of the tasks they perform. Registered Nurses may receive their basic pre-service nursing education in four-year university baccalaureate programs, in two-year junior college associate degree programs, or in three-year hospital school programs. Practical nurses receive licensure usually after a year of formal training which may take place in a hospital school, a junior college, or a vocational school. The practice by Licensed Practical Nurses, in theory, is more limited than the role of Registered Nurses. Actual employment of Registered Nurses and Practical Nurses, however, may be very similar, or may be poles apart. The variance of role depends largely on the particular employment situation and individual qualifications.

A third category of nursing personnel is the non-licensed group of nursing helpers which includes nurses aides, home health aides, attendants, and orderlies. These auxiliary nursing personnel are not regulated by the Florida State Board of Nursing or other State agencies. They may perform under certain circumstances many of the functions normally carried out by professional and practical nurses, but such extension of the role of this group may exceed the sanction of law. Nursing aides, attendants, and orderlies generally receive in-service training as they work. Although these persons perform essential tasks related to nursing practice, they will not be considered in this analysis.

The formal pre-service educational structure of the medical services occupations pyramid is rather strange. Figure 1 (82, pp. 16-17) shows that the mass of health personnel fall generally under four years in post secondary formal education. A relatively small group of professional personnel receive from five to eight years of post-high school preparation. And the pyramid is grandly topped off by a proportionally large group of physicians with nine or more years of post-high school education. Statistics reported show 313,559 physicians employed in 1966 as compared to 613,118 employed nurses (6, p. 209).

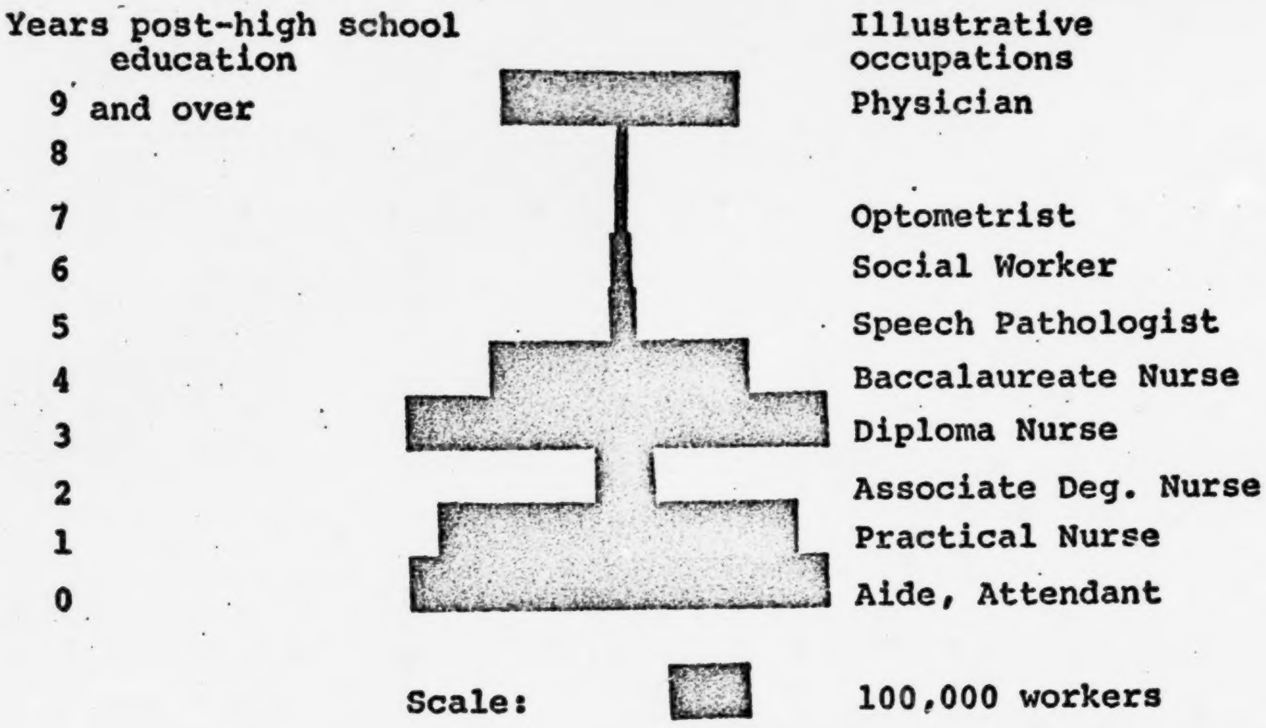

Fig. 1.--The Medical Services Pyramid

Preparation for the health professions and services in larger part, has been outside the mainstream of education in this country. In probably no other field of endeavor is there an educational pyramid like that of the health occupations. Today's general education pattern progresses through achievement levels such as high school graduation, 2 years of college, 4 years of college, and graduate education - each a stepping stone to the next. But in the health fields, the three largest occupational groups are medicine, with 12 years of post-high school education; nursing which has been almost entirely a 3-year post-high school program, and practical nursing with a year of post-high school education[Florida law (464.111 F.S.) requires that to be licensed as a practical nurse, a person must have completed at least the tenth grade]and with no educational bridges between them (82:p. 16).

Despite the illogical lack of continuity which exists among the educational preparation levels of the various health system components, the various components do receive formal preparation with varying degrees of success. If gaps exist in the education of health system components, there are also other gaps which are concerned with role and status (17). As a primary need, it follows that the body of nursing personnel must be brought into a more harmonious relationship with the total system. The American Nurses' Association has taken a step toward the resolving of some of these problems by taking the position that nursing education, "Should take place in institutions of learning within the general system of education" (4, p. 107). The Association holds that there should be two basic levels of nursing practice: professional nursing, grounded in four years of higher education, and a technical level based upon two years of post-high school education (4, pp. 107-108). The conclusion of the Association's position paper on nursing education defines the purpose of nursing education:

> The ultimate aim of nurses education and nursing service is the improvement of nursing care. The primary aim of each is different.
>
> The primary aim of nursing education is to provide an environment in which the nursing student can develop self-discipline, intellectual curiosity, the ability to think clearly, and acquire the knowledge necessary for practice. Nursing education reaches its ultimate aim when recent advances in knowledge and findings from nursing research are incorporated into the program of study in nursing.

> The primary aim of nursing service is to provide nursing care of the type needed, and in the amount required, to those in need of nursing care. Nursing service reaches its ultimate aim when it provides a climate where questions about practice can be raised and answers sought, where nursing staffs continue to develop and learn, and where nurses work corroboratively [sic] with persons in other disciplines to provide improved services to patients.
>
> These aims--educating nurses and providing patients with care can only be carried out when nurses in education and in service recognize their interdependence and actively collaborate to achieve the ultimate aim of both--improved nursing care (4, p. 111).

Nurses, as well as other health-related personnel, are in chronic short supply. The shortage is both qualitative and quantitative. The education and continued practice of nurses is a concern which directly affects the well-being and happiness of us all. The number of people who can be adequately served, and the quality of this care is directly a function of the number of nurses actively practicing their professions and the quality of their preparation. National well-being and security are proportional, in degree, to the supply of nurses. Because the quality of health care and the supply of nurses are so closely linked, it is a matter of humanistic concern and public welfare that adequate numbers of qualified nurses be educated to meet the demands of a growing population and of an increasingly complex health system.

The Need for the Study

Nursing service can be improved through farsighted and coordinated planning in the development of nursing education. Sound planning is based on carefully researched data. Planning efforts should be coordinated among the affected agencies and institutions of nursing education. Planning must be for the future as well as the present. It is not sufficient to simply deal with the problems of today. It is imperative that nursing education keep pace with constant change in the production of health care, and with accelerating demands for nurses. Such planning must take into consideration the manifest changes in society which so greatly affect the profession. Planning which is put into practice can help the nursing profession accommodate the dual mandates of demand and change. The need for this study is found in the needs of nurse education planners for information on which to base their plans. This study is intended to provide some of these essential data.

Leone (53) stresses the critical need for statewide planning for nursing education. Her assessment of the nurse shortage is emphatic (her emphasis):

> The qualitative and quantitative gaps in nursing service will become more and more threatening to the well-being of people, and will continue to cause economic loss unless planned action is taken at once. The first point of attack must be nursing education: its quality, its capacity, and the balance among the components of the nursing education system (53, p. 2).

In a 1968 report to the Southern Regional Education Board, Flitter (23, p. 44) made the observation that, "If the shortage of nurses in the region is to be overcome, this report provides evidence that immediate, long-range, and vigorous planning for nursing education is required." Planning of such importance cannot be made blindly. It must be based upon a full awareness of the present situation and the best possible projection.

Leone (53, p. 111) lists five imperatives for producing more and better nursing personnel:

I. Comprehensive planning for more and better nursing education must begin at once.

II. Planning for improved, expanded nursing education must be done on a statewide basis.

III. An official state body must be responsible for planning and action to improve and expand nursing education.

IV. Planning must be founded on a clear understanding of existing conditions and future trends in (1) nursing, (2) higher education, (3) other health services and professions.

V. The planning bodies efforts must be geared to producing prompt action and meaningful changes in nursing education.

This study can be used in fulfilling, in some degree, Leone's imperatives. The study can be used as an aid for immediate planning. It can serve as an aid in coordinating planning among State agencies concerned with planning the education of health workers (the Florida State Board of Nursing, the Florida Hospital Association, the Florida Medical Association--to name a few). It can serve as a body of data which shows trends in nursing resources and education. It can be used as a bench mark for planning changes in nurse education.

Florida is experiencing profound economic and population growth. The State is the most rapidly growing among the southeastern states (79, p. 12). In the decade from 1950 to 1960, Florida experienced one of the highest rates of population growth among the fifty states, from 2,771,000 to 4,952,000; an increase of 78.7 percent (79, pp. 12-13). Personal income in Florida has steadily increased over the years (46, p. 88).

Population increase, and the increasing expectations of the people of Florida for quality in health care, require the development of more and better prepared health workers. More health personnel at all levels are needed. Physicians, dentists, and most ancillary health workers are in short supply. Registered Nurses and Licensed Practical Nurses are in chronic short supply due to genuinely accelerated demand, poor utilization of those already in service, and unnecessary attrition among licenses. Whatever the cause of the nurse shortage, unmet needs for adequately educated nurses can result in abbreviated service. Depressed levels in possible health care are possible. Other ancillary health personnel can be utilized to perform functions for which they are not trained.

Sociologist Talcott Parsons has written that, "The strong emphasis of health care in American society during the present century makes it clear that concern for health is deeply grounded in the values of the society. Certain features of our modes of handling health problems are also revealing of our value patterns. . . . Health is highly valued as an essential condition of contribution to the societal process through valued personal achievement" (66, p. 22).

Wilson has described the formal social structure of the hospital and the role of the nurse in the following manner:

> The nurse is, of course, traditionally subordinate to the physician, and she is a paid employee amenable to routine administrative structures, yet she wields immense influence because of sheer weight of numbers and closeness to the central job of healing. It is fair to assume that the picture of a hospital held by its clients and its surrounding community is preeminently based on nurses' behavior; they are the persons the patient sees, the persons who express the guiding spirit of the institution in the minutiae of action (89, p. 72).

It should be supposed that the sociological importance of nurses is not restricted to their practice in hospitals, but the influence and importance is probably similarly felt in non-hospital employ. The quality of their contribution to the highly valued health programs of our society, however, is directly related to the education and training they receive.

The entire complex of health services is in constant change as are most other elements of our society. It is hoped that the processes of change will help eventually to eliminate shortages of vital health personnel. But for the present and immediate future, the problems of inadequate supply and poor utilization of nursing personnel are yet to be resolved. In the long range, change will come as new forms of nursing practice, new roles for nursing personnel, new status and social relationships, perhaps even a new occupational hierarchy, and certainly profound change in nursing education. In the immediate future, however, careful planning and responsive action must be undertaken to best alleviate existing shortages. In developing nurse manpower, care must be taken to base educational planning upon the best data that are available. This necessitates the initiation of continuous data collection and evaluation complementary to data collection must be the provision for coordinated planning and effective implementation of planning.

The passage of the Partnership for Health Amendments of the Public Health Service Act, P. L. 89-749, began groundwork for integrated study and planning for the development of total health services. Much potential for planning was provided by this act which resulted in the establishment of the Florida Office of Comprehensive Health Planning.

A president of the Florida Medical Association (71, p. 938) has made reference to the present shortage of nursing personnel in the State, "Everyone in and many people out of the medical profession realize that there is today a marked shortage of nurses, particularly in hospitals. Every indication is that the situation will become much more acute before there is any improvement. . . . The 1967 Survey of Health Occupations in the State of Florida reveals that there are now 9,100 registered nurses and 4,200 licensed practical nurses actively working, and there are currently vacancies for 1,208 R. N.s and 769 L. P. N.s. The estimated need for the next years 1968 and 1969 is for 4,948 R. N.s and 2,726 L. P. N.s." He describes the undersupply of nurses as a grave problem, a problem which could be overcome, however, through the cooperative efforts of the health profession and education.

The introduction of the 1967-1968 Annual Report of the Florida State Board of Nursing stressed the need for planning:

> Qualified practitioners of nursing are essential members of the health care team if the highest quality of health care is to be rendered to the citizens of Florida. For several years the Board of Nursing, members of the profession, allied health groups, as well as the public, have been concerned with both quantity and quality of services. While there appears to be a shortage of nurses, there are other identifiable problems and solutions which would greatly assist in meeting present and future needs.
>
> The proper utilization of those involved in nursing services is vital to patient care. The specialized judgment and skill required of a professional nurse must be directed to meet patient needs and the tasks of less complex nature assigned to other workers. This will improve care to patients as well as protect the public against unprepared and unlicensed persons practicing nursing. Nursing services rendered by unqualified persons have reached serious proportions, resulting in more concentrated efforts in law enforcement. Rapid advances in medical science, new techniques and treatments, and the complexities of equipment, require that health services be administered by prepared and competent practitioners.
>
> Intelligent planning for nurse education, preparation of faculty and those in other leadership positions, recruitment of nursing students, continuing education for the practitioner, improved salaries, must proceed with all reasonable speed to assure that the nursing services for our rapidly growing population are met (27, p. 1).

The purpose of this study is, therefore, to provide data on nursing resources and nursing education in Florida, to draw conclusions from these data, and to make recommendations pertaining to the betterment of nursing education for the State. It is hoped that these data and recommendations will find immediate use by nurse educators, and other planners. It is also hoped that the study will help promote interest in, and stimulate action toward, a coordinated statewide effort for nurse education planning. The study may be used as the basis for future data collection and study. Comparative use of the information may be made in later studies. It is hoped that the need for additional research noted in this study will help generate other related studies.

Statement of the Problem

The practice of nursing and the provision of nursing education are two broad and interrelated fields. Together, they present an array of problems which must be eventually resolved. These problems range from the very academic to those which are very practical and non-theoretical in nature. The problem examined in this study is both theoretical and practical. The issue of this research is:

From a study of nursing resources and nursing education in Florida, what implications exist which can be used for the planning and development of nursing education within the State?

Objectives of the Study

In order to resolve the problem of the study, the following objectives were sought:

I. To generate a profile of the nurses in Florida by the Florida State Board of Nursing, and to analyze how their number, nature, and disposition relate as nursing resources for Florida.

II. To identify the current availability of nursing education opportunities in Florida as related to certain identifiable health needs.

III. To examine the present and future need for nursing personnel in Florida.

IV. To formulate, based upon these data, recommendations relative to the further development and modification of nursing education in Florida in order to insure adequate and quality preparation of nursing personnel in an orderly and economic manner.

Delimitations and Assumptions

This study is limited to the geographic boundaries of the State of Florida. Reference is made to the Southeast region, and to the nation as a whole only as comparative to Florida. The study is limited to nursing personnel of the State; that is, those persons who are licensed as Registered Nurses, and as Licensed Practical Nurses by the Florida State Board of Nursing. Nurses of both active and inactive licensure status are studied. No attempt is made to study other health personnel, though there is a great need to do so. The major emphasis of this study is concerned with the nature of Florida's resources and needs with respect to nursing education, rather than emphasis upon schools of nursing or nursing practice. The investigation is, therefore, further delimited in emphasis.

Although it may be argued that there is great need for profound change in nursing practice and education, it is doubtful that there will be much abrupt change in the legal and extra-legal forces which influence the general roles, functions, status, and educational preparation of nurses. Change in nursing practice and nurse education is expected to be both gradual and deliberate. It is, therefore, assumed that the trends indicated in this study will be useful indicators, at least for the immediate future, unless unforeseen forces cause gross change. It is also assumed that the techniques employed have produced a sample that is reasonably representative of the total population as a whole. It is further assumed that those nurses who answered the questionnaire of the survey did so in good faith, giving truthful and accurate information.

Procedures

The following procedures have been employed in the study:

I. REVIEW OF RELATED LITERATURE AND RESEARCH - A thorough search of the literature relating to nursing education and practice was made for information and techniques pertinent to the study. A comparative study was made of previous related research. The literature was researched in order to provide a background of Florida, regional, and national statistics.

II. DATA COLLECTION - Information for the study was obtained from State agencies and from a questionnaire survey of licensed nurses in the State, which is the core of the study.

A. Information was obtained from the files of the Florida State Board of Nursing.

B. A questionnaire survey was conducted (Appendix A, Item 1):

1. The questionnaire was mailed to a proportional stratified random sample of all Registered Nurses and Licensed Practical Nurses, of active and inactive licensure status, who were known to reside in Florida and who are currently licensed by the Florida State Board of Nursing. A cover letter (Appendix A, Item 2) signed by the Secretary-Treasurer of the Florida State Board of Nursing, the President of the Florida Nurses' Association, and the researcher was enclosed explaining the purpose of the questionnaire and urging compliance with

the survey. (It was decided, after the letter was printed, to omit the enclosure of a card which indicated noncompliance in the survey, because it was felt that the card would provide a too easy alternative not to comply with the survey). A postage-paid return addressed envelope was also enclosed.

2. A post card reminder (Appendix A, Item 4) was sent to those persons in the sample who had failed to return the questionnaire. This was done after the flow of returns had fallen off greatly.
3. A third mailing was made soon after the second mailing. A cover letter, postage-paid return addressed envelope, a questionnaire, and a follow-up letter (Appendix A, Item 3) were mailed to those people of the sample who had not yet responded.
4. A fourth mailing was made soon after reduction in the number of returns from the third mailing was noted. This consisted of a return reply double post card (Appendix A, Item 5).
5. The nurses in the sample who still had not responded after an additional two

weeks were abandoned and were partially replaced from a back-up group of randomly selected nurses from each county and each licensure classification who were also sent a questionnaire packet.

6. A post card (Appendix A, Item 3) was mailed to those nurses of the replacement group who had not yet responded.
7. A follow-up letter, a postage-paid return addressed envelope, and a questionnaire were sent to those persons in the replacement sample who failed to respond. This was the last attempt to elicit responses to the questionnaire.

C. Information concerning the various Registered Nurse and Licensed Practical Nurse programs in the State was requested from the Florida State Board of Nursing.

III. PROCESSING OF INFORMATION - Use was made of data processing methods for collating and analyzing the data thus gathered. Facilities of the University of Florida Computing Center were used in the processing of the survey data.

IV. FINAL REPORT - This is the primary report made of the results of the study.

From the foregoing discussion and catalog of procedures, it is readily apparent that the principal part of this study is the analysis of certain characteristics of a specific group of people. The study is, in many ways, a demographic study--a study of population characteristics (73).

Demography is the study of human populations in which analysis is made of the size, composition, and distribution of populations. These three major variables describe human populations at a given time; such study is called population statics. Study of population change is population dynamics. There are three ways a population can change: fertility (entrance into the population), mortality (or removal from the population), and migration (exchange among populations). These are the basic demographic processes (73, pp. 12-13).

The Survey Sample

The data gathered in the Florida Nurse study were supplied from responses to the questionnaire (Appendix A, Item 1) sent to a proportional stratified random sampling of the population universe of licensed resident nurses in Florida. The sample was designed according to the principles of sampling found in Slonim (68), Cella (12), and Cochran (14, pp. 87-113). Initially a 2 percent sampling error was selected. Cella's formulation for calculating the sample size (12, p. 162) was employed in the determination of the sample size:

$$n - 1 = \frac{\sum \left(\frac{N_s}{N}\right)^2 p_s q_s}{\sigma_p^{\ 2}}$$

In this formulation n was the sample size, N the universe size, N_s the individual strata size, $p_s q_s$ the maximum variability within the strata, and σ_p the theoretical standard deviation.

A total sample of n = 2,000 was stratified proportionally among the 43,030 resident nurses licensed by the State of Florida. The sample was selected at random from address cards maintained by the Florida State Board of Nursing. Strata proportions were observed in this selection (please refer to Appendix B, Items 1 and 2), with respect to type of nurse licensure and number of nurses of each type in each county of the State.

Two thousand questionnaires were sent out to the nurses in the survey sample. At the same time a back-up sample was developed in the same manner. When it became apparent that nurses selected for the sample would not participate, alternate cases were substituted.

A total of 1,921 completed questionnaires were received for the appropriate stratifications for type of licensure and location. The final sample population was composed of:

1,229	active Registered Nurses,
122	inactive Registered Nurses,
532	active Licensed Practical Nurses, and
38	inactive Licensed Practical Nurses.

A corollary of Cella's formula was used to determine that the sampling error was less than 2 percent at the 99 percent confidence level:

$$\sigma_p = \sqrt{\frac{\sum\left(\frac{N_s}{\bar{N}}\right)^2 p_s q_s}{n - 1}}$$

Please refer to Appendix B, Items 2 and 3, for analysis of the sample by strata and by cell.

Definitions

The following meanings are to be consistently related to these terms:

Study - Unless other reference is made to other specifically cited studies, this will consistently relate to this investigation.

Florida Nurse Study - This is the title given to the questionnaire survey.

Questionnaire Survey - This is the sampling of the nurses of the State (Appendix A, and B).

Registered Nurse - Unless otherwise specified, this relates only to those nurses in the State who hold, or have held, some form of licensure from the Florida State Board of Nursing as Registered Nurses. Nurses licensed by other states, or who reside out-of-state, are excluded.

Licensed Practical Nurse - Unless otherwise specified, this relates to those nurses in the State who hold, or have held, some form of licensure from the Florida State Board of Nursing as Licensed Practical Nurses. Nurses licensed by other states, or who reside out-of-state, are excluded.

Active Status - This is in reference to active licensure as a nurse which carries the legal sanction to practice.

Inactive Status - This is in reference to inactive licensure, which may easily be changed to active status, but which legally precludes employment as a nurse.

Lapsed Status - This is in reference to nurses who have once been licensed in Florida, but who presently hold neither active nor inactive licensures.

Florida State Board of Nursing - This is the legally constituted agency, staffed by licensed nurses, which has among its duties the granting of licensure, regulation of nursing education programs, and enforcement of the law which pertains to licensed nurses.

Licensure - The act of granting a specified status to nurses as required by law. This licensing certifies that the nurse has been examined and is fit to practice. Active licensure status permits the employment of the individual as a nurse.

Nursing Capacity - This relates to the particular role the nurse assumes in employment.

Place of Employment - This relates to the kind of establishment in which the nurse is employed, and which may or may not dictate the particular role or nursing capacity.

Allied Nursing Personnel - These are health workers who provide some nursing functions or services closely related to nursing practice, but who are not licensed as nurses.

Examples are nurses aides, operating room technicians, and inhalation therapists.

Ancillary Health Personnel - These are the persons, including nurses, who provide the spectrum of services supportive to physicians and other advanced health professionals.

Nursing Education Program - This is a formal education curriculum designed to prepare students for licensure as Registered or Practical Nurses.

Schools of Nursing - These are the organized programs of nursing with students, faculty, facilities, equipment, and associations with actual health facilities for clinical experiences.

Nursing Education - This includes both pre-service and in-service theoretical and applied advancement of practitioners in roles accepted as appropriate.

Employment - This is service rendered in return for remuneration.

Health System - This is the complex network of personnel and facilities which together provide for health care.

Health Services - These are services which contribute to maintenance, and restoration of health, or to the easement of death.

Related Literature

The literature of nursing is crowded with surveys of nursing needs and resources. Many of these have been of high quality and have found genuine use in effective planning which resulted in positive change. Many studies are concerned with assessing the need for nurses and of available resources, but relatively few contain specific recommendations for educational planning.

Simmons (44) has written of this type of nursing research:

> American nurses in the late nineteen-forties were all out with the idea that "a survey is sound strategy." From 1945 to 1955 almost every state nurses' association participated in one form or another in what came to be called surveys of nursing needs and resources. These studies were generally organized under committees (usually advisory, executive, and technical) and might be sponsored independently by a state nurses' association or in cooperation with medical, educational, welfare, or other professional or civic organizations. Some were made under university sponsorship. The surveys were essentially short-term projects, financed by very limited funds, hurriedly prepared, distributed in the majority of cases in mimeographed form, and initiated primarily for the purpose of planning early programs of action or in the recruitment and preparation of additional nursing personnel. A sense of urgency and a quest for practical knowledge for present application characterized most of them. They were forerunners and good examples, of what came to be labeled "action research." As voiced by the director of one of the surveys, "Action without study is fatal; study without action is futile" (Nebraska, Summary Report, 1950-1951, 1).
>
> A central issue and a point of particular concern that dominated most of the surveys was the claim of shortages in the supply of nurses. Based on various and sundry criteria of unmet needs for nurses--and in spite of a steadily increasing number of nurses--the report of shortages became a refrain for almost every study (44, p. 143).

Simmons made a careful analysis of twelve surveys of nursing needs which were made in the early 1950's. It was his judgment that the studies which he examined, ". . . did not measure up to the fine tradition of survey procedures and achievements in design or workmanship that had been previously established by the social sciences and certain welfare agencies." He noted that the studies did indicate that there were wide variations of quantity and quality of nursing care; that there was inadequate preparation for nurse supervisors and administrators; that the supply of nurses was low; that the personnel policies in nursing practice varied greatly and were often ill defined; and that the functions of professional and nonprofessional nurses were equally poorly defined. "The major significance of the surveys in nursing lies more in the practical effects that they appear to have had on the profession. They provided, for example, a means of bringing together and stimulating interest and practice in research on the part of widely dispersed groups of nurses, allied professionals, and civilian leaders throughout the country. They served to provide perspective on the urgent issues in nursing, such as discrepancy between need and supply, ineffective organization and administration of nursing services, and defects in the educational programs for nursing. They also served to identify further pertinent problems for more systematic and thorough study" (44, pp. 164-165). Both Abdellah (1) and Meyer (59) have written much in the field of nursing research.

Reports on needs for nurse manpower are still being produced at a rapid rate. One source (82, pp. 63-68) lists thirty-six reports which have been written since 1960. These studies deal, at least in part, with nurse supply and demand for particular states. Florida was not represented among these specifically cited studies.

A few doctoral dissertations have been written that are, at least indirectly, concerned with the planning of nurse education. Stewart (72) studied nurse education in Ohio. Farrell (22) formulated a plan for nursing education for New York State. Henderson (41) developed a proposal for pre-service programs for West Virginia. Van Trump (84) investigated the Missouri Practical Nurse. Labecki (52) wrote a historical study on baccalaureate degree programs in the Southern region, 1925-1960. MacLaggan (57) developed a plan for nurse education in New Brunswick, Canada. Hart (40) investigated the needs and resources for graduate education for nurses in Canada. Torres (78) made a proposal for upgrading nursing education for Puerto Rico. Paxton (67) drew up a plan for Illinois utilizing junior college resources for nurse education. Mussallem (62) developed a plan for Canada. Styles (74) completed a study of articulation between Florida junior colleges and baccalaureate degree nursing programs in State universities.

A few nursing studies have been conducted for Florida. The Bureau of Business and Economic Research at the University of Miami conducted a study (83) on the economic conditions of nurses in Florida in 1950. Maclachlan (56) made a survey of nursing in Florida in 1952, the findings of which were presented in a rather brief report. The

Department of Investigation and Research and Public Training Center General Extension Division of Florida published a mimeographed statistical report on nursing in the State in 1954 (18). A report (38) by the Florida Division of Vocational and Adult Education was prepared on practical nursing for the State in 1955 for the years 1950-1954. Tilley (77) wrote a dissertation in 1956 entitled, "A Survey of Practical Nursing and Practical Nurse Education in Florida." Of interest is the participation of Florida in the W. K. Kellogg Foundation Four-State Associate Degree Nursing Project. The summary of the Florida participation in this project, can be found in the discussion of the project by Anderson (7, pp. 107-173). An undated report of a nurse manpower study was recently developed by the Florida Board of Regents (70). A health occupations education survey was made by the Florida State Department of Education in 1967 (30). A 1968 study (69) was made by the Board of Regents which parallels this study, in which some recommendations concerning nurse education were made. It is of passing interest that a doctoral dissertation was written at a German university concerning the medical resources of Florida in 1958 (13).

A search of the literature for related research has failed to disclose recent comprehensive studies of nursing service and education for Florida such as has been produced by several other states (2, 15, 16, 19, 48, 65, 76, 85, 86).

It is interesting to note that North Carolina has undertaken three major formal surveys of nursing education since World War II, the most recent published in December, 1967 (10, 20, 21, 63).

CHAPTER II

THE PRESENT PRACTICE OF NURSING IN FLORIDA: THE SIZE, DISTRIBUTION, AND RATE OF CHANGE OF THE NURSE POPULATION

In order that better opportunities for nursing education be planned for Florida, it is necessary that the composition and placement of the State's nurse population be examined. It is the purpose of this and the following chapter to provide some analysis of the character of nursing practice within the State. Data on and analysis of the size, distribution, and rate of change of the nurse population are presented in Chapter II. Chapter III is concerned with information which describes certain important characteristics of the nurse population. Much of the information presented in these two chapters was gathered as a part of the questionnaire survey study hereafter mentioned as the Florida Nurse Study. Other data presented was obtained from the Florida State Board of Nursing.

It is the intent of this portion of the study to describe the nurse population of Florida with respect to numbers of nurses; the number of Registered Nurses and Licensed Practical Nurses, the number with active and inactive licensure, and the number who are actually employed in the profession as nurses. Analysis is made according to geographic distribution using a variety of criteria. Gross attrition and gain rates are examined.

Data and analysis are presented, where possible, at a level that describes the entire State nurse population directly. Where data are not available for the entire population, a projection or estimation is made of the total population from sample data. Differentiation between actual and projected statistics is made in this chapter and elsewhere in this dissertation. The reader is cautioned to consider that there are three classes of descriptive information presented: namely, that which describes the universe directly; that which describes the universe indirectly, that is, estimations projected from sample data; and that which describes the sample directly.

Number of Nurses

If quantity and quality are taken to be the principal dimensions of the relative level of effective nursing within the State, then the easier of the two to gauge is quantity or the number of nurses. It must be acknowledged that while quantity is examined as the criterion here, no implication is intended that quality is a secondary concern. There must be adequate numbers of well-prepared nurses if nurse service needs are to be successfully met; quantity without quality is as ineffectual as quality without quantity. The law requires a given level of quality through prescription in programs, state approval of nursing schools, and through licensure examinations or equivalents.

The quantity or number of nurses in a given locality is but a crude and somewhat deceptive measure of adequacy. Such parameters are gross in that numbers of nurses allocated geographically or proportionally in a given population fail to show individual types of employment or specific utilization in such employment. Numbers alone are also deceptive because such statistics are seldom tied to specific needs. If there are any universal formulas for the allocation of nurse manpower in which specific numbers, levels of education, and specialization are balanced with specific needs of a population of a given size and condition, such formulas are unknown to this writer. Much has been written about there being too few nurses and the need for more nurses to be educated, yet the actual economics seem to suggest a continuing high demand for nurses (in terms of pay and benefits), the market value of which is kept down. Consequently the supply of nursing services offered in the market remains restricted. This leads to the supposition that there would be no shortage of nurses if the rewards of nursing were high enough (assuming a free-trade-private-enterprise economy). This is later discussed in more detail.

Nurses Under Florida Licensure, 1967-1968

As of June 30, 1968, there was a total of 60,220 nurses licensed by the State of Florida through the Florida State Board of Nursing. Of these, 18,190 were then not residents of the State. Of the remaining 42,030, there were

30,357 Registered and 12,673 Licensed Practical Nurses. There were 26,545 Registered Nurses with active licensure and Florida addresses. There were 11,457 Licensed Practical Nurses with active licensure and with Florida addresses. There were 3,812 Registered Nurses with inactive licensure and Florida addresses, and there were 1,216 Licensed Practical Nurses with inactive licensure and Florida addresses (27) (Table 1).

Although initially there seems to be a relatively large number of nurses in Florida, it must be understood that there are considerably fewer nurses actively practicing nursing than those who are licensed to do so. An attempt is made later in this study to estimate the number of nurses actively employed in the State. Many nurses maintain active licensure with little or no intent of placing their services on the market. This is done for a number of reasons, among which are: the status that licensure brings, security of potential immediate employability, interest in the profession without the need for employment, and the need for many women to interrupt their careers for family reasons. Other causes of non-employment in nursing by nurses are examined in detail later in this report.

Trends in the Number of Nurses Licensed in Florida

Table 2 lists the numbers of nurses licensed by the Florida State Board of Nursing from 1958 through 1968. These figures represent a rough barometric charting of the response of the nursing profession to the demand for its

TABLE 1

NURSES LICENSED BY THE STATE OF FLORIDA, JUNE, 1968*

	Registered Nurses		Licensed Practical Nurses	
	Active	Inactive	Active	Inactive
Florida	26,545	3,812	11,457	1,216
Out-of-State	5,210	10,125	1,449	1,406
TOTALS	31,755	13,937	12,906	2,622

* Source: Florida State Board of Nursing (27, p. 3a).

TABLE 2

ACTIVE AND INACTIVE REGISTERED AND LICENSED PRACTICAL NURSES LICENSED BY THE STATE OF FLORIDA, 1958 THROUGH 1968*

Year	Registered Nurses		Licensed Practical Nurses	
	Active	Inactive	Active	Inactive
1968	31,755	13,937	12,906	2,622
1967	31,709	12,281	12,378	2,168
1966	27,434	12,514	11,231	2,202
1965	28,084	11,504	11,073	1,875
1964	25,002	11,383	9,793	1,912
1963	25,322	9,799	9,724	1,448
1962	23,925	10,033	9,192	1,468
1961	27,636	7,455	10,194	970
1960	22,353	7,489	8,307	1,088
1959	25,835	4,680	8,715	418
1958	22,472	4,444	7,824	388

*Source: Florida State Board of Nursing data (29).

services in the State during the period. It is a matter of conjecture, however, how closely these figures approached the actual demand curve of services needed, but these figures can be considered as indicators of the relative level of services offered the market, and the supply of services available over the period. It is a matter of speculation only that the trends shown in the table and illustrated in Figure 2, paralleled a real pattern of needed services. The nurse shortage, however, indicates that the supply offered the market was short of demand for the State as a whole.

It must be understood that the gross totals of nurses licensed by Florida were not available for the service marketplace. Inactive nurses of both types were not directly available for immediate employment, though a proportion of them represented a potential source of services contingent upon change in licensure status. Some active nurses of both types were not residents of the State, but rather held active Florida licensure while residing in other states and even other nations. Further discussion of this is made later.

The number of licensed nurses by the State of Florida has grown over the decade. The figures shown in Table 2 do not appear to represent an orderly progression, or linear relationship, however. This somewhat irregular pattern is due, in part, to biennial licensure which was only recently changed to annual licensure registration in 1967. The

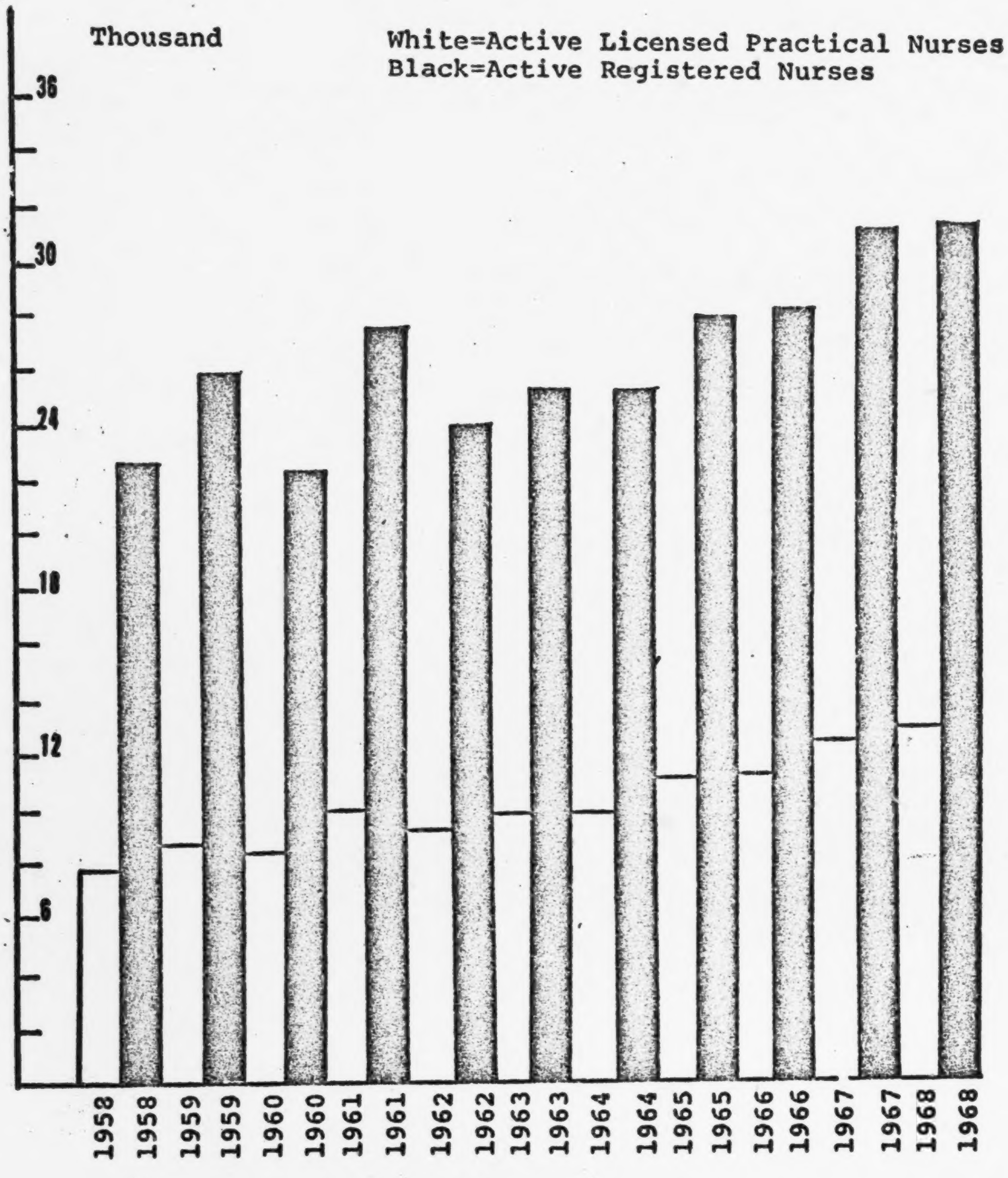

Fig. 2.--Active and Inactive Registered and Licensed Practical Nurses Licensed by the State of Florida, 1958 through 1968 (See Table 2)

effect of biennial licensure renewal was to cause an inflated number of nurses to be reported under license during the second year of registration due to a carry-over effect from the previous year of nurses who for various reasons would not be counted on an annual basis. Another effect was that the numbers reported during the first year of biennial registration were apt to be somewhat low due to the tendency of some nurses to delay their reregistration and thus cause a lag effect.

The trend during the decade has been of general and sustained growth in the number of active and inactive nurses of both types. Table 3 indicates the relative growth pattern in terms of percent increase of one year over the preceding year. Unfortunately, because of the somewhat erratic pattern of growth indicated, clear year-by-year trends are difficult to see. Growth can be seen better in terms of two or more years of reported data. Study of the percentages in Table 3 reveals two separate patterns of change in the number of active and inactive license holders. Growth or change patterns are first seen to be arranged in patterns of high change years alternating with low (or negative) growth years. Further examination reveals that this biennial pattern is a pattern which is alternated between the two types of licensure status--high change rates in active licensure are paired with low change rates in inactive licensure one year, and the reverse the following year. This curious pattern was the result of the lag

TABLE 3

PERCENT CHANGE IN THE TOTAL NUMBERS OF REGISTERED AND PRACTICAL NURSES LICENSED BY FLORIDA, 1958,THROUGH 1968*

Year	Registered Nurses		Licensed Practical Nurses	
	Active % Change	Inactive % Change	Active % Change	Inactive % Change
1968	.14	13.48	4.26	20.94
1967	11.51	1.86	10.21	2.45
1966	1.24	8.66	1.42	17.44
1965	12.32	1.94	13.07	4.55
1964	-1.26	16.16	.70	32.34
1963	5.83	2.33	5.78	1.36
1962	-13.42	34.58	9.82	51.34
1961	23.63	.57	22.71	10.84
1960	-13.47	60.02	4.68	160.28
1959	16.16	3.51	13.94	7.73
1958	---	---	---	---

*Source: adapted from Florida State Board of Nursing data (25).

and carry-over effects which were caused by the two-year licensure registration periods. The pattern is well established of a net positive change in a given biennium which suggests a positive annual growth pattern constant over the decade.

Nurses and Population

The relative proportion of the number of nurses in a given civil population is frequently used as a descriptive measure of the quantity of nursing service provided in a given area. The obvious shortcomings of population-nurse ratios as measures of need and supply of nursing services are discussed elsewhere.

Table 4 shows the total number of licensed nurses of both types with active licensure compared to the population of the State. Since the national census is only taken every ten years the population figures are all estimated with the exception of 1960, a census year. The active nurse population licensed by Florida has roughly paralleled the estimated general population growth of the State.

Table 5 is a representation of the information presented in Table 4, but expressed in terms of nurses per 100,000 population. Here again, both the pattern of growth and the somewhat irregular licensure pattern are shown. From these ratios a pattern of proportional growth is also indicated. There was a general increase in the number of nurses licensed by the State as compared to population estimates (this trend is more pronounced for Licensed

TABLE 4

ESTIMATED POPULATION AND ACTIVE LICENSED NURSES IN FLORIDA, 1960, THROUGH 1968*

		Registered Nurses		Licensed Practical Nurses	
Year	Population	Total	In-State***	Total	In-State***
1968	**6,202,000	31,755	26,545	12,906	11,457
1967	**6,045,695	31,709	26,282	12,378	10,900
1966	**5,889,390	28,434	23,770	11,231	10,054
1965	**5,733,085	28,084	23,309	11,073	9,854
1964	**5,576,780	25,002	20,751	9,793	8,715
1963	**5,420,475	25,322	21,017	9,724	8,654
1962	**5,264,170	23,925	19,857	9,192	8,180
1961	**5,107,865	27,636	22,937	10,194	9,072
1960	4,951,560	22,353	18,552	8,317	7,402

*Source: Florida State Board of Nursing (29), and Bureau of Economic and Business Research (9).

**Population estimates only. Figures for years 1961-1967 are interpolated.

***In state figures are estimated for the years 1960-1965; 1966, 1967, 1968, figures are actual reported numbers.

TABLE 5

ESTIMATED GROSS NUMBER OF ACTIVE LICENSED NURSES IN FLORIDA PER 100,000 POPULATION, 1960, THROUGH 1968*

Year	Registered Nurses	Licensed Practical Nurses	Total
1968	428	184	612
1967	434	180	614
1966	403	170	573
1965	406	171	577
1964	372	156	528
1963	387	159	546
1962	377	155	532
1961	449	177	626
1960	374	149	523

*Source: adapted from source material for Table 4.

Practical Nurses with active Florida licensure). The fact that Table 5 shows a ratio of 428 Registered Nurses per 100,000 for 1968 does not mean that this was the actual level of nurses practicing. The table includes all nurses licensed by the Florida State Board of Nursing with Florida addresses. Of these figures only about 56 percent of the active Registered Nurses, and about 57 percent, of the Licensed Practical Nurses were estimated to be practicing on a full-time basis.

Table 6 indicates the estimated numbers of nurses in full-time employment in Florida over the period from 1960, to 1968. These figures were calculated from data presented in Tables 4 and 5 with which multipliers of .5565 and .5696 were used for Registered Nurses and Licensed Practical Nurses respectively. These factors represent percentages of samples taken in the questionnaire survey. In the questionnaire survey sample 55.65 percent of all Registered Nurses in the State reported that they were working as nurses full time, 11.71 percent reported part-time employment as nurses, and 4.32 percent were said to be employed as nurses on an irregular or occasional basis. Licensed Practical Nurses in the sample reported full-time employment as nurses to be 56.95 percent of all reporting, 7.70 percent part time, and 6.39 percent on an irregular basis. It was assumed that all other nurses in the sample were unemployed as nurses in Florida (28.39 percent for Registered and 28.94 percent for Licensed Practical Nurses).

TABLE 6

NUMBER OF ACTIVE LICENSED NURSES IN FLORIDA AS ESTIMATED TO HAVE BEEN ACTIVELY EMPLOYED FULL-TIME AS NURSES IN THE STATE ACCORDING TO THE PROPORTIONS ESTABLISHED IN THE FLORIDA NURSE STUDY FOR 1968, FOR THE YEARS, 1960, THROUGH 1968*

Year	**Registered Nurses	***Licensed Practical Nurses	Total
1968	14,772	6,525	21,297
1967	14,625	6,208	20,833
1966	13,228	5,726	18,954
1965	12,971	5,612	18,583
1964	11,578	4,963	16,541
1963	11,696	4,928	16,624
1962	11,050	4,659	15,709
1961	12,764	5,167	17,931
1960	10,324	4,215	14,539

*Source: adapted from Table 5 and Florida Nurse Study data (25).

**Multiplier = .5565.

***Multiplier = .5695.

Table 7 is an expression of Table 6 in terms of nurses in practice on a full-time basis per 100,000 population in Florida. These parameters are proportionately less than the figures expressed in Table 5, to the degree of the above described employment factors. They represent an approximation of the full-time nursing services of the State during the period in terms of population ratios. As do the other data, they represent modest increases in available nursing services over the period. They do not represent total nursing services available as estimated, however, because these figures do not account for the services provided by Florida nurses of both types on part-time and on irregular employment basis. It must be noted that part-time and occasionally employed nurses of both types do not make up a proportionately large sector of the nurse population estimated. It is therefore concluded that while their contribution is important and significant in many instances (especially in private duty situations) that the major responsibility for nursing services rendered is borne by the full-time practitioners.

Maclachlan's 1952 study of nursing in Florida showed a reported overall 68.1 percent Registered Nurses "active" in nursing, and 76.7 percent of resident Florida Licensed Practical Nurses (56, p. 22). Comparisons with Maclachlan's study with the findings of this study suggest concurrence with his assessment that:

TABLE 7

NUMBER OF ACTIVE LICENSED NURSES IN FLORIDA PER 100,000 POPULATION AS ESTIMATED TO HAVE BEEN ACTIVELY EMPLOYED FULL-TIME IN THE STATE ACCORDING TO THE PROPORTIONS ESTABLISHED IN THE FLORIDA NURSE STUDY FOR 1968, FOR THE YEARS 1960, THROUGH 1968*

Year	Registered Nurses	Licensed Practical Nurses	Total
1968	238	104	342
1967	242	103	345
1966	224	97	321
1965	226	97	323
1964	207	89	296
1963	215	90	305
1962	209	88	297
1961	249	101	350
1960	208	84	292

*Source: from material in Tables 4 and 6.

> The services estimated to have been performed in the State during the year by both the professional and the practical nurses probably amounted to only a portion of the nursing performed by all types of persons. Nurses' aides and a variety of other workers provided much nursing service in hospitals, and individuals without formal training probably provided a good deal of paid private nursing service (56, p. 30).

The American Nurses'Association (6, p. 15) reports an estimated 65.3 percent of all the nation's Registered Nurses were employed in nursing in 1966. The 1966 Association figure for Florida is 73.0 percent (estimated survey results for 1968 is about 71 percent of Registered Nurses employed on some basis).

Nursing services can be legally rendered only by nurses who are actually employed as nurses within the State. Gross figures of nurses licensed by the State may tend to lead to a false security of numbers unless it is remembered that such crude indicators include non-residents and non-practitioners. If Flitter's brief discussion of goals for nurses (23, p. 1) is taken as a benchmark for a measure of adequate levels of practicing nurses then Florida falls short (though comparatively well off relative to other southeastern region states (23, p. 9) in terms of nurse-population measures).

> In 1957, the National League for Nursing recommended a conservative ratio of 300 nurses per 100,000 population. Six years later, taking the expansion of health facilities and programs and other factors into account, the Surgeon General's Consultant Group recommended a minimum goal of 375 nurses per 100,000 population by 1970. More recently, the Division of Nursing of the U. S. Public Health Service reassessed the situation and set a goal for 1975 of 450 RN's per 100,000 population (23, p. 1).

This study does not examine the usage of non-nurses in nursing functions. Much study is needed in this area in order to get a clear and specific indication of the role of aides, orderlies, and other ancillary workers in the provision of nursing care. The relationship of nursing service and general population, however, cannot be fully assessed until more (further) study is made of all health service workers. If the relatively low population-nurse ratios for Florida indicate real gaps in nursing service, then it may be assumed that such gaps are filled, at least in part, by health personnel who are not nurses in the eyes of the law, and who probably lack the ability to provide safe and adequate service.

State and National Comparisons

Table 8 is a comparison of Florida and other southeastern states with respect to employed Registered Nurses per 100,000 population, and in terms of percentage of all licensed professional nurses. This composite table of data from the American Nursing Association shows wide variation among states in the region with respect to population-nurse ratios for employed Registered Nurses. Less variance is evident for percent in employment as nurses. Florida, it is shown, ranks third from highest in the region in the number of employed professional nurses per 100,000 population, for 1966. There is some question about these figures, however, because the source (6, p. 15) lists Florida having a total of 28,750 Registered Nurses which

TABLE 8

COMPARISON OF FLORIDA EMPLOYED REGISTERED NURSES WITH OTHER SELECTED STATES AND THE UNITED STATES, 1966*

State	Employed Registered Nurses per 100,000 Population	Percent Employed of all Licensed Registered Nurses as Nurses
South Atlantic		
Delaware	409	61.9
District of Columbia	454	82.2
FLORIDA	369	73.0
Georgia	156	67.7
Maryland	277	64.5
North Carolina	244	77.1
South Carolina	217	70.3
Virginia	258	69.4
West Virginia	260	78.0
East South Central		
Alabama	168	69.0
Kentucky	198	67.7
Mississippi	157	76.2
Tennessee	175	70.3
West South Central		
Arkansas	182	69.6
Louisiana	187	71.9
Oklahoma	188	67.4
Texas	188	64.4
UNITED STATES	313	65.3

Source: American Nurses Association (6, pp. 13, 15).

is much in excess of Registered Nurses with active licensure reported within the State in 1968. This apparent error is possibly the result of an application of the percentage of active license holders employed to both active and inactive Florida licensed Registered Nurses within the State. Rather than throw out these statistics entirely they may be used advisedly as indicators of relative ranking rather than as absolute measures of saturation. This done, Florida may be categorized as rating better than most of its regional peers, and comparing favorably on an aggregate basis with the national averages. This is not to say, however, that the Florida nurse supply was adequate at this time.

Geographic Distribution

The nurses of Florida are distributed in an uneven manner across the State. The following is an analysis of the distribution for the year 1968. (A word of caution: the fact that an individual nurse reported his address in a given county at the time of his request for licensure does not necessarily mean that the county in question was the actual county of his employment, if any.) A discussion of findings concerning the commuting characteristics of the nurse population is presented later in this study. Four levels of geographic division are represented here: counties, economic trading areas (Figure 3), population growth areas (Figure 4), and Northern versus Southern Florida (Figure 4).

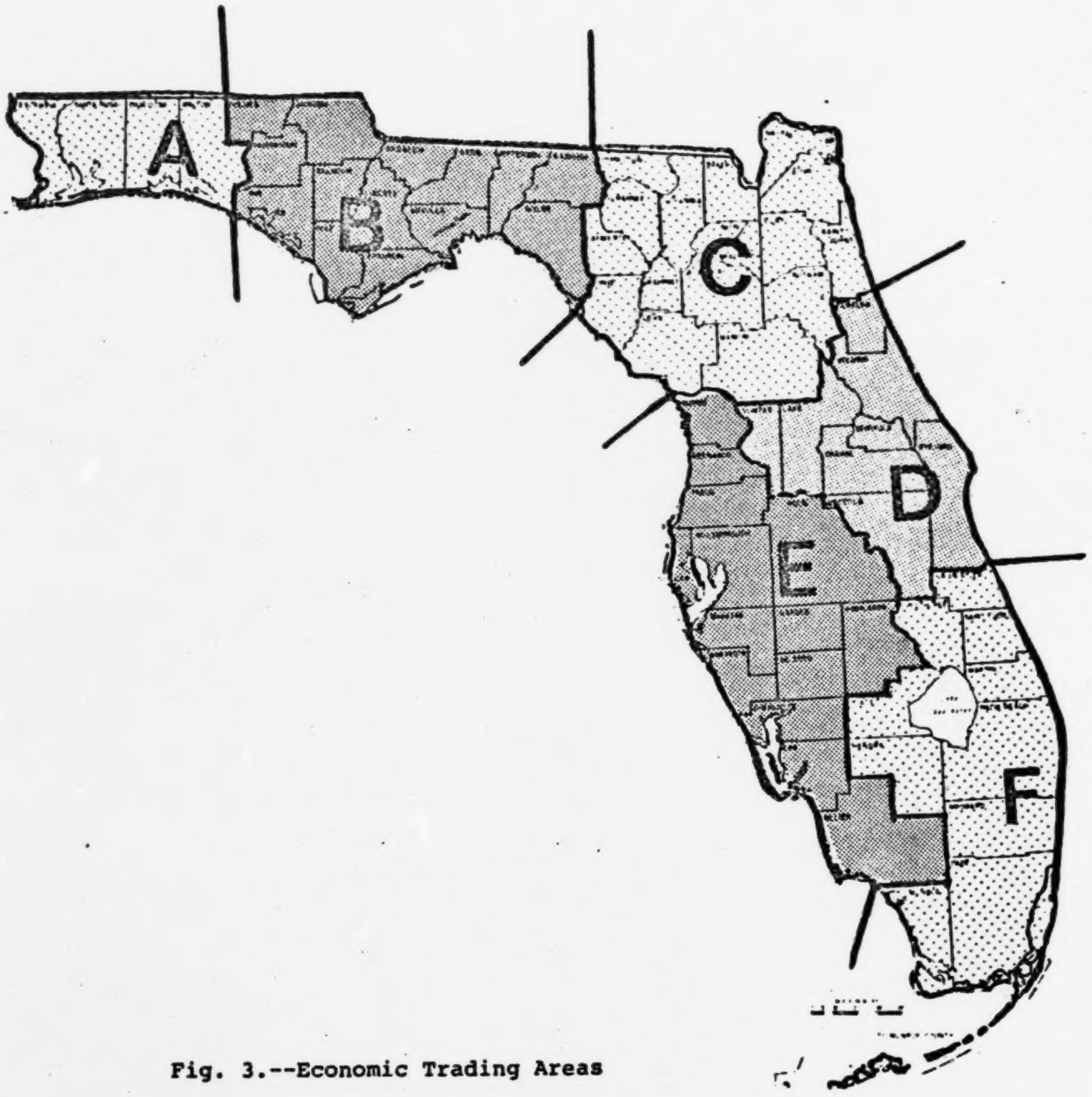

Fig. 3.--Economic Trading Areas

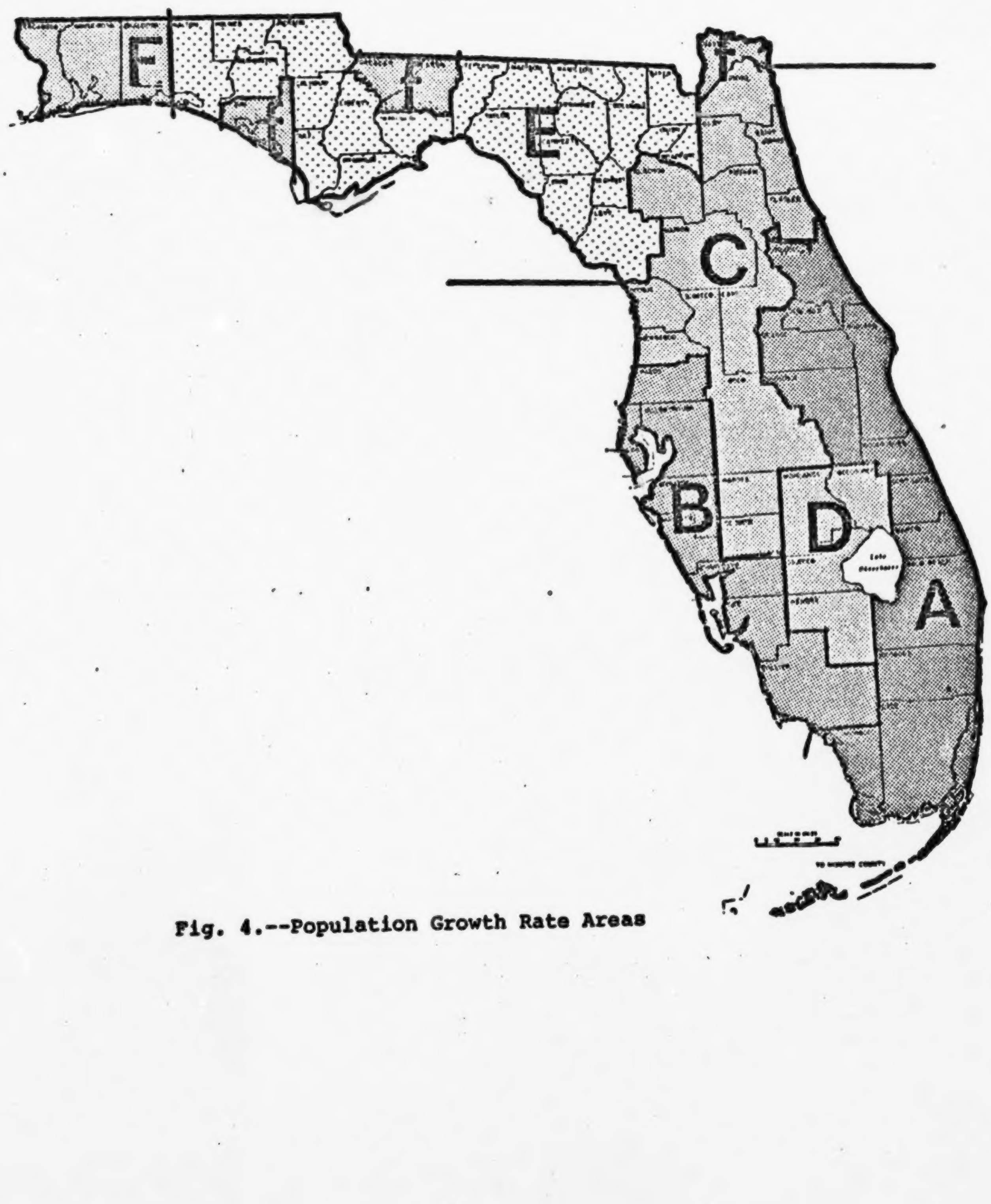

Fig. 4.--Population Growth Rate Areas

There are sixty-seven counties in Florida. They are diverse rather than homogeneous in nature. In size they range from the Dade County with 2,054 square miles, to Union County which has only 240 square miles. Population density ranges from the very high of 1,686.4 people per square mile for Pinellas County, to the very low of 3.6 people per square mile in Liberty County. The configuration of the State is such that it can be argued that the extreme panhandle region tends to have more association and more in common with the Mobile, Alabama region than the peninsula proper, and that the rest of Northern Florida has much in common with South Georgia.

Much of the State has been subject to high rates of population growth, especially the east and west coastal areas. Other parts of the State notably the northern and panhandle areas have experienced more modest growth rates. Much of south-central Florida is swampland. In 1960, Lafayette County had the highest percentage (85.23 percent) of native-born citizens, while Pinellas County had (21.05 percent) the lowest (36, pp. 17, 21). County-by-county analysis of Florida involves a law of diminishing returns; consequently, for most purposes it is more profitable to examine them in area groupings. The two primary analysis groupings used here are economic trading areas, and areas of common population growth characteristics.

The Office of Business Economics (O.B.E.) of the United States Department of Commerce has divided the nation into regional economic divisions (30). Florida was divided into six major economic or common trading areas. These areas share common economic characteristics. These areas are (see Figure 3): Area 130 (A), Mobile, with four Florida counties; Area 34 (B), Tallahassee, with fourteen counties; Area 33 (C), Jacksonville, with seventeen counties; Area 35 (D), Orlando, with eight counties; Area 36 (E), Tampa, with fourteen counties; and Area 37 (F), Miami, with ten counties. These counties are:

- A--Mobile (130)
  - Escambia
  - Okaloosa
  - Santa Rosa
  - Walton
- C--Jacksonville (33)
  - Alachua
  - Baker
  - Bradford
  - Clay
  - Columbia
  - Dixie
  - Duval
  - Gilchrist
  - Hamilton
  - Lafayette
  - Levy
  - Marion
  - Nassau
  - Putnam
  - Saint Johns
  - Suwannee
  - Union
- E--Tampa (36)
  - Charlotte
  - Citrus
  - Collier
  - DeSoto
  - Hardee
  - Hernando
  - Highlands
  - Hillsborough
  - Lee
  - Manatee
  - Pasco
- B--Tallahassee (34)
  - Bay
  - Calhoun
  - Franklin
  - Gasden
  - Gulf
  - Holmes
  - Jackson
  - Jefferson
  - Leon
  - Liberty
  - Madison
  - Taylor
  - Wakulla
  - Washington
- D--Orlando (35)
  - Brevard
  - Flagler
  - Lake
  - Orange
  - Osceola
  - Seminole
  - Sumter
  - Volusia
- F--Miami (37)
  - Broward
  - Dade
  - Glades
  - Hendry
  - Indian River
  - Martin
  - Monroe
  - Okeechobee
  - Palm Beach
  - Saint Lucie

E--Tampa (36) Continued
Pinellas
Polk
Sarasota

These areas roughly categorize the State as follows: the Mobile area represents the extreme western region of the panhandle of the State, the Tallahassee area the north-central sector, Jacksonville the northeastern portion of the State, Orlando the central portion, Tampa for the west coast, and the Miami area for the southeast coast area.

A second method of analysis of Florida's counties by grouping is by areas of comparative growth rates (see Figure 4). Loren and England (55, pp. 27-30, 32, 33), in a discussion of education in Florida, computed the comparative growth rates for the respective counties (growth rate equals increment since 1940 divided by 1940 population divided by years since 1940) and then grouped these counties in terms of six categories of counties with similar growth rates. They note that, "The population of Florida has been steadily shifting from North Florida to South Florida. The median line of population in 1900, divided the 29 counties of North Florida and the 38 counties of South Florida. The median population in 1960 crossed the state from Tampa Bay" (55, p. 28). This analysis groups the counties accordingly: South Florida Metropolitan (Areas A, B, C), a twelve-county area with 13.9 percent yearly growth rate (A), an eight-county area with a growth rate of 9.5 percent (B), and a fourteen-county area with a 5.1 percent rate (C); South Florida Rural Area composed of a four-county area with a 5.7 percent growth rate (D); and the North Florida Area composed of a twenty-two county area with a 0.1 percent growth rate (E), and a seven-county area (non-continuous) with a 6.4 percent comparative growth rate per year (F). Figure 4 shows that this analysis paradigm designates the Florida peninsula as South Florida, and the panhandle as North Florida; consequently, Jacksonville is designated to be in the South Florida Metropolitan area according to this mode of analysis. From a cursory examination of Figures 3 and 4, it is apparent that there is much overlap and similarity between the two types of groupings. The economic areas and the growth areas tend to have much the same areas. The two growth areas (E, F) which make up North Florida indicate comparatively little growth (0.1 percent) except in the three county Pensacola area, the Panama City area, the Tallahassee area and Nassau County which is influenced by Jacksonville. Moderate growth rates have been experienced in the central (5.1 percent) South Florida Metropolitan area (C), and the South Florida Rural area (5.7 percent) (D), much of which is swampland. The South Florida Metropolitan area west coast (B) has experienced a high rate of growth (9.5 percent), and the east coast area (A) (much of which is swampland) has experienced the highest rate of growth (13.9 percent). These counties are:

A--South Florida Metropolitan, 13 percent

- Brevard
- Broward
- Dade
- Indian River
- Martin
- Monroe
- Orange
- Osceola
- Palm Beach
- Saint Lucie
- Seminole
- Volusia

B--South Florida Metropolitan, 9.5 percent
Charlotte
Collier
Hillsborough
Lee
Manatee
Pasco
Pinellas
Sarasota

C--South Florida Metropolitan, 5.1 percent
Alachua
Citrus
Clay
DeSoto
Duval
Flagler
Hardee
Hernando
Lake
Marion
Polk
Putnam
Saint Johns
Sumter

D--South Florida Rural, 5.7 percent
Glades
Hendry
Highlands
Okeechobee

E--North Florida, 0.1 percent
Baker
Bradford
Calhoun
Columbia
Dixie
Franklin
Gilchrist
Gulf
Hamilton
Holmes
Jackson
Jefferson
Lafayette
Levy
Liberty
Madison
Suwannee
Taylor
Union
Wakulla
Walton
Washington

F--North Florida, 6.4 percent
Bay
Escambia
Gasden
Leon
Nassau
Santa Rosa

In addition to population growth, these categories tend to indicate general urbanization, and also tend to be indicative of the relative degree of prosperity and affluence.

Nurses in Florida's Counties

Table 9 shows the distribution of all Registered and Licensed Practical Nurses of active and inactive Florida licensure by county of residence as of June 30, 1968. These are total licensure figures only and do not indicate actual

TABLE 9

DISTRIBUTION OF ACTIVE AND INACTIVE REGISTERED AND LICENSED PRACTICAL NURSES IN FLORIDA BY COUNTY, JUNE 30, 1968*

	Registered Nurses				Licensed Practical Nurses				Percent of Population in County
	Active		Inactive		Active		Inactive		
County	No.	%	No.	%	No.	%	No.	%	
Alachua	606	2.28	74	1.94	237	2.06	28	2.30	1.53
Baker	16	.06	-0-	-0-	7	.06	-0-	-0-	.13
Bay	206	.77	25	.65	131	1.14	10	.82	1.11
Bradford	24	.07	2	.05	14	.12	2	.16	.21
Brevard	938	3.53	93	2.43	184	1.60	38	3.12	3.72
Broward	2569	9.67	281	7.37	746	6.51	67	5.50	8.03
Calhoun	10	.03	1	.02	15	.13	5	.41	.12
Charlotte	112	.42	13	.34	27	.23	1	.08	.34
Citrus	38	.14	7	.18	12	.10	2	.16	.21
Clay	72	.27	20	.52	37	.32	4	.32	.40
Collier	108	.40	9	.23	32	.27	3	.24	.50
Columbia	126	.47	6	.15	41	.35	2	.16	.40
Dade	5446	20.51	693	18.17	1892	16.51	197	16.20	18.37
DeSoto	49	.18	7	.18	16	.13	1	.08	.22
Dixie	5	.01	1	.02	1	.00	-0-	-0-	.08
Duval	1659	6.24	306	8.02	1058	10.10	97	7.97	8.30
Escambia	738	2.78	134	3.51	542	4.73	34	2.79	3.15
Flagler	15	.05	-0-	-0-	5	.04	3	.24	.08
Franklyn	15	.05	2	.05	9	.07	-0-	-0-	.11
Gasden	100	.37	10	.26	68	.59	7	.57	.72
Gilchrist	4	.01	-0-	-0-	3	.02	-0-	-0-	.05
Glades	4	.01	-0-	-0-	3	.02	-0-	-0-	.05
Gulf	21	.07	-0-	-0-	13	.11	3	.24	.15
Hamilton	8	.03	1	.02	2	.01	-0-	-0-	.13
Hardee	25	.09	3	.07	24	.20	3	.24	.23
Hendry	23	.08	2	.05	10	.08	2	.16	.19

TABLE 9 -- Continued

	Registered Nurses				Licensed Practical Nurses				Percent of Population in County
	Active		Inactive		Active		Inactive		
	No.	%	No.	%	No.	%	No.	%	
Hernando	34	.12	9	.23	22	.19	1	.08	.21
Highlands	115	.43	18	1.12	54	.47	4	.32	.41
Hillsborough	1460	5.50	246	6.45	1116	9.74	112	9.21	7.41
Holmes	18	0.06	1	.02	7	.06	-0-	-0-	.18
Indian River	129	.48	11	.28	35	.30	5	.41	.55
Jackson	73	.27	9	.23	64	.55	12	.98	.59
Jefferson	11	.04	2	.05	20	.17	1	.08	.14
Lafayette	3	.01	-0-	-0-	3	.02	-0-	-0-	.04
Lake	259	.97	34	.28	94	.82	19	1.56	1.05
Lee	361	1.35	32	.83	99	.86	13	1.06	1.34
Leon	301	1.47	51	1.33	207	1.80	14	1.15	1.46
Levy	19	.07	3	.07	25	.21	-0-	-0-	.19
Liberty	3	.01	2	.05	8	.06	1	.68	.04
Madison	20	.07	3	.07	14	.12	1	.08	.24
Manatee	390	1.46	56	1.46	179	1.56	32	2.63	1.34
Marion	204	.76	32	.83	76	.66	13	1.06	1.05
Martin	106	.39	16	.41	21	.18	2	.16	.38
Monroe	122	.45	28	.73	52	.45	5	.41	1.00
Nassau	30	.11	7	.18	13	.11	3	.24	.31
Okaloosa	191	.71	34	.89	60	.52	8	.65	1.37
Okeechobee	15	.05	1	.02	12	.10	-0-	-0-	.16
Orange	1644	6.19	265	6.95	625	5.45	69	5.67	5.12
Osceola	62	.23	11	.28	42	.36	7	.57	.34
Palm Beach	1659	6.24	232	6.08	425	3.70	33	2.71	4.90
Pasco	147	.55	25	.65	77	.67	13	1.06	.83
Pinellas	3009	11.33	506	13.27	1283	11.19	162	13.32	7.25
Polk	748	2.81	107	2.80	420	3.66	45	3.70	3.93
Putnam	78	.29	14	.36	55	.48	6	.49	.54
Santa Rosa	118	.44	14	.36	54	.47	4	.32	.56

TABLE 9 -- Continued

	Registered Nurses				Licensed Practical Nurses				Percent of Population in County
	Active		Inactive		Active		Inactive		
	No.	%	No.	%	No.	%	No.	%	
Sarasota	687	2.58	114	2.99	341	2.97	25	3.70	1.67
Seminole	206	.77	31	.81	90	.78	11	.90	1.17
St. Johns	132	.49	28	.73	64	.55	8	.65	.53
St. Lucie	180	.67	31	.81	45	.39	9	.74	.79
Sumter	20	.07	4	.10	7	.06	1	.08	.22
Suwannee	26	.09	3	.07	49	.42	5	.41	.27
Taylor	23	.08	4	.10	27	.23	-0-	-0-	.21
Union	4	.01	1	.02	11	.09	1	.08	.10
Volusia	858	3.23	129	3.38	498	4.34	60	4.93	2.70
Wakulla	3	.01	2	.05	6	.05	1	.08	.09
Walton	28	.10	6	.15	12	.10	-0-	-0-	.26
Washington	22	.08	-0-	-0-	16	.13	1	.08	.19
TOTALS	26,545	99.60	3,812	99.90	11,457	100.54	1,216	100.51	99.67

*Source:
Computed from Florida State Board of Nursing data.

employment. The data shown in the table include number and percentage of each type of licensure in each county. The percentage refers to the percent of total nurses in the particular category and not the total of all categories of licensure. Also shown is the percentage of the total estimated population of the State in each county. Interesting comparisons can be made to show the various relationships between percent of population and the percent of each type of licensure residency. While neither the percentage nor the number is a direct measure of the level of nursing service within a particular county, the two parameters do indicate a potential for service which exists in that county.

A comparative analysis of county percentages of the total State population, and Registered and Licensed Practical Nurses of active licensure percentages shows that forty-one counties had less than the population percentage for both types of nurses. Eight counties had nurses of both categories equal to, or in excess of, the population percentages. Eleven counties had active Licensed Practical Nurses of higher percent than the general population. Seven counties had a higher percentage of the total active Registered Nurses than their percentage of the State population.

Distribution Among Trading Areas

Table 10 shows the distribution of the percentages of each type of nurse licensure among the six-economic

TABLE 10

DISTRIBUTION OF ACTIVE AND INACTIVE REGISTERED AND LICENSED PRACTICAL NURSES IN FLORIDA BY ECONOMIC TRADING AREA, JUNE 30, 1968*

Area**	Registered Nurses				Licensed Practical Nurses				Percent of State Population
	Active		Inactive		Active		Inactive		
	No.	%	No.	%	No.	%	No.	%	
A-Mobile (4 counties)	1075	4.04	188	4.93	668	5.83	46	3.78	5.35
B-Tallahassee (14 counties)	916	3.45	112	2.93	605	5.28	56	4.60	5.41
C-Jacksonville (17 counties)	3016	11.36	498	13.06	1696	14.75	169	13.89	14.33
D-Orlando (8 counties)	4002	15.07	567	14.87	1545	13.48	208	17.10	14.44
E-Tampa (14 counties)	7283	27.43	1152	30.22	3702	32.31	417	34.29	25.96
F-Miami (10 counties)	10253	38.62	1295	33.97	3241	28.28	320	26.31	34.48
Florida (67 counties)	26545		3812		11457		1216		

*Source: Computed from Florida State Board of Nursing data.

**Source: Office of Business Economics map (80).

trading areas which have been previously described, and the percentage of the total State population in each area. The number of nurses of each type in each area is also shown. These groupings tend to show the relative levels of nursing service on a comparative basis within the State with respect to regions having common economic centers.

Analysis of the data shows that the four county Mobile associated area had 5.35 percent of the State population, 5.83 percent of the State's active Licensed Practical Nurses, but only 4.04 percent of the active Registered Nurses. The fourteen county Tallahassee area had 5.41 percent of the population, but only 3.45 percent of the active Registered Nurses, and 5.28 percent of the active Licensed Practical Nurses. The seventeen county Jacksonville area had 14.33 percent of the total population, 14.75 percent of the Licensed Practical Nurses, and only 11.36 percent of the Registered Nurses. The eight county Orlando area with 14.44 percent of the population, had 15.07 percent of the active Registered Nurses, and 13.48 percent of the Licensed Practical Nurses. The fourteen county Tampa area had 25.96 percent of the State population, 27.43 percent of the Registered Nurse population, and 32.31 percent of the Practical Nurse population. The Miami area with ten counties and 34.48 percent of the population had 38.62 percent of the active Registered Nurses, and 28.28 percent of the active Licensed Practical Nurses.

If the three northern areas, Mobile, Tallahassee, and Jacksonville, are analyzed as a group, the pattern emerges of approximately equal percentages for the State and active Licensed Practical Nurse populations, but much smaller percentages of the active Registered Nurse population are included. This information may be considered in several ways: (1) it is apparent that there is a higher reliance upon the services of practical nurses in this area; (2) the economics of this area has resulted in more practical nurses being employed, and/or not enough Registered Nurses have been educated in these areas.

The southern three areas, Orlando, Tampa, and Miami present a different picture. The Orlando area had an approximately equal percentage array, with a slightly higher percentage of Registered Nurses than the percentage of State population, and slightly lower with respect to Licensed Practical Nurses with active licensure. The Tampa area had higher percentages for both types of nurses than the population percentage, but the percentage of active Licensed Practical Nurses was considerably higher. The Miami area had a higher percentage of the State's Registered Nurses than it had in percent of the total State population, but the percentage of active Licensed Practical Nurses was less than that of the population percentage. The Orlando area had approximately the share of both types of nurses to be expected, proportionate percentage for all the population. The Tampa area with its extended care facilities and high concentration of aged people had approximately its proportional share of Registered Nurses, but considerably more than its share of active Licensed Practical Nurses. It must be assumed that Practical Nurses are being utilized extensively in the care of the aged in this area. The Miami area has attracted more than its expected allocation in terms of percentages of active Registered Nurses, but less in terms of Licensed Practical Nurses with active licensure. Perhaps this has resulted because of the greater affluence and ability to pay higher wages in the Miami area.

Distribution Among Areas of Growth

Table 11 shows the distributions of percentages for each type of nurse licensure among the six comparative growth rate areas which have been previously defined. Also included is a division of North Florida from South Florida. Percentages are for the particular type of licensure only and not for all nurses. Both the number of nurses of each type and the percentages are shown for each area, as well as the percent of the total population which resides in each area. Like the immediately preceding section on economic areas, these statistics tend to show on a comparative basis the relative levels of nursing service, but in this case with respect to population growth rates.

Analysis of the data shows that for the South Florida Metropolitan Area, which had an overall growth rate of 9.8 percent, the following population-nurse relationships

TABLE 11

DISTRIBUTION OF ACTIVE AND INACTIVE REGISTERED AND LICENSED PRACTICAL NURSES IN FLORIDA BY COMPARATIVE GROWTH AREA, JUNE 30, 1968*

Area and Growth Rate**	Registered Nurses				Licensed Practical Nurses				Percent of State Population
	Active		Inactive		Active		Inactive		
	No.	%	No.	%	No.	%	No.	%	
South Florida Metropolitan Area (9.8%)									
A (13.9%) (12 counties)	13,919	52.43	1,821	47.27	4,655	40.63	503	41.36	47.14
B (9.5%) (8 counties)	6,274	23.63	1,001	26.25	3,154	27.52	361	29.68	20.72
C (5.1%) (14 counties)	3,939	14.83	645	16.92	2,127	18.56	231	18.99	18.56
South Florida Rural Area (5.7%)									
D (5.7%) (4 counties)	157	0.59	21	0.55	79	0.68	6	0.49	0.82
North Florida Area (3.0%)									
E (0.1%) (22 counties)	482	1.81	49	1.28	367	3.20	35	2.87	4.01
F (6.4%) (7 counties)	1774	6.68	275	7.21	1075	9.38	80	6.57	8.12
Southern Florida-38 counties (A,B,C,D)	24259	91.38	3488	91.50	10015	87.41	1101	90.54	87.27
Northern Florida-29 counties (E,F)	2256	8.49	324	8.49	1442	12.58	1116	9.53	12.72
Florida-67 counties	26454	100.00	3812	100.00	11457	100.00	1216	100.00	100.00

*Computed from Florida State Board of Nursing data (27).

**Source (55;29).

existed: the twelve-county 13.9 percent growth area had 47.14 percent of the total state population, with 52.43 percent of the State's active Registered Nurses, but only 40.63 percent of the active Licensed Practical Nurses; the eight-county 9.5 percent growth area had 20.72 percent of the population, 23.63 percent of the active Registered Nurses, and 27.52 percent of the Licensed Practical Nurses with active licensure; and the fourteen-county 5.1 percent growth rate area with 18.56 percent of the population had only 14.83 percent of the active Registered Nurse population, but had 18.56 percent of the active Licensed Practical Nurse population. The South Florida rural area which is composed of four counties and having a 5.75 percent growth rate, had 0.82 percent of the State population, 0.59 percent of the active Registered Nurses, and 0.68 percent of the active Licensed Practical Nurses. The North Florida area, which had an overall growth rate of 3.0 percent showed the following comparisons: for the twenty-two county 0.1 percent growth rate area with 4.01 percent of total State population, there was only 1.81 percent of the active Registered Nurses, and only 3.20 percent of the active Licensed Practical Nurses; and for the seven-county 6.4 percent growth rate area which had 8.12 percent of the State population there was 6.68 percent of the active Registered Nurses and 9.38 percent of the active Licensed Practical Nurses. Thirty-eight-county South Florida which had 87.27 percent of the entire State population had 91.38

percent of all active Registered Nurses, and 87.41 percent of all active Licensed Practical Nurses. The twenty-nine-county North Florida region which had 12.72 percent of all the people in the State had only 8.49 percent of all the active Registered Nurses, and 12.58 percent of all Licensed Practical Nurses with active licensure within the State.

If the two northern areas are considered as a unit, there is approximate correspondence between total population percentages and percentages of Licensed Practical Nurses of active licensure, but there is a lower level of active Registered Nursing personnel in the area. Division of the region into the twenty-two-county area of 0.1 percent growth and the seven-county 6.4 percent growth groups shows lower levels for both types in the former. Lower levels for active Registered Nurses are indicated in both groups. The division is questionable, however, since the low growth group counties probably are served by the higher growth counties. In general, for the two-area grouping there seems to be a heavy reliance upon the services of Practical Nurses, perhaps for the reasons previously mentioned in the economic area section.

The four-southern areas taken as a unit show a high level of resident active Registered Nurses, higher than the proportion of total population, and a level of active Licensed Practical Nurses comparable to the total population proportion. The 5.7 percent growth rate South Florida Rural Area shows proportionately lower levels for both types of nurses, but it is assumed that these four counties depend heavily on both east and west coast areas of higher concentrations of nursing services. Of the South Florida Metropolitan Area, the twelve-county 13.9 percent area has proportionately more active Registered Nurses, but proportionately fewer of the active Licensed Practical Nurses, the eight-county 9.5 percent area has proportionately more of both types of nurses, but considerably more active Licensed Practical Nurses as compared to total population percentages; finally, the fourteen-county 5.1 percent area has proportionately equal percentagesof active Licensed Practical Nurses and total population, but less than the total population percentage level of active Registered Nurses. These are the approximate relationships previously shown in the economic area analysis: the Miami-associated area has attracted proportionally more active Registered Nurses, with proportionately less Practical Nurses; the reverse of this is shown for the Orlando-Jacksonville associated area; proportionally high levels of both types are found along the west coast, but with higher levels for active Licensed Practical Nurses.

Distribution and Nurse to Population Ratios

Gross population to nurse ratios are commonly used as indicators of both supply and need for nursing personnel. Such statistics are often not qualified with specific detail, but tend to be sweeping generalizations only. These statistics, however, are useful as indicators of aggregate measure. To say that an area needs a given number of nurses per unit of population is both vague and not specific. This type of parameter should be qualified with factors such as the proportion of active nurses of different type and experience that are available for employment in the particular area. The full-and part-time employment rates among the nurses in the region, the specific needs, and special characteristics of the region should also be considered. Seeming disproportions among compared geographic areas can often be explained when the characteristics of the areas are examined, and often the disproportions may not exist in reality. Frequently nurses who are assigned to a given area may be employed outside the area. Often large ratios, for an urban area for example, fail to indicate that other contiguous areas with lower ratios are served by the large ratio area. Nurse population ratios are not the best possible parameters, but with the exercise of some caution in their use they can be helpful indicators of general supply and demand. Such ratios must be considered approximations of low precision.

Table 12 relates the licensed nurses who were in residence in Florida as of June 30, 1968. Total numbers of active Registered and Licensed Practical Nurses for each county are listed. Estimated population for each county is also listed. For each category of nurse licensure for each county, a gross ratio of nurses per 1,000 population has been computed. (These figures readily convert to nurses

TABLE 12

DISTRIBUTION OF ACTIVE NURSES IN FLORIDA BY COUNTY WITH COUNTY POPULATION AND NURSES PER 1,000 POPULATION, JUNE 30, 1968*

		Active R.N.			Active L.P.N.		
County	Population**	Number	Ratio	Rank	Number	Ratio	Rank
Alachua	95,000	606	6.37	3	237	2.49	7
Baker	8,100	16	1.97	42	7	.86	56
Bay	69,000	206	2.98	28	131	1.89	19
Bradford	13,100	24	1.83	45	14	1.06	46
Brevard	231,000	938	4.06	15	184	.79	58
Broward	498,400	2569	5.15	6	746	1.49	31
Calhoun	7,900	10	1.26	57	15	1.89	19
Charlotte	21,400	112	5.23	4	27	1.26	38
Citrus	13,600	38	2.79	34	12	.82	57
Clay	25,100	72	2.86	31	37	1.47	33
Collier	31,500	108	3.42	22	32	1.03	47
Columbia	25,000	126	5.04	7	41	1.64	25
Dade	1,139,500	5446	4.77	8	1892	1.66	23
DeSoto	13,700	49	3.57	21	16	1.21	42
Dixie	5,000	5	1.00	64	1	20	67
Duval	515,100	1659	3.22	24	1058	2.05	14
Escambia	195,600	738	3.77	18	542	2.77	5
Flagler	5,100	15	2.44	29	5	.98	51
Franklin	7,300	15	2.05	40	9	1.23	39
Gasden	44,700	100	2.23	38	68	1.52	29
Gilchrist	3,400	4	1.17	59	3	.88	54
Glades	3,800	4	1.05	60	3	.78	59
Gulf	9,500	21	2.21	39	13	1.36	37
Hamilton	8,100	8	.98	65	2	.24	66
Hardee	14,800	25	1.68	48	24	1.62	27
Hendry	12,200	23	1.88	43	10	.81	57
Hernando	13,400	34	2.53	35	22	1.64	25
Highlands	25,500	115	4.50	10	54	2.11	13
Hillsborough	460,000	1460	3.17	25	1116	2.42	8
Holmes	11,500	18	1.56	49	7	.60	64
Indian River	34,500	129	3.73	19	35	1.01	50
Jackson	36,600	73	1.99	41	64	1.74	21
Jefferson	9,300	11	1.18	58	20	2.15	11
Lafayette	2,900	3	1.03	61	3	1.03	48
Lake	65,400	259	3.96	17	94	1.43	34
Lee	83,200	361	4.33	13	99	1.19	44
Leon	91,000	391	4.29	14	207	2.27	9
Levy	12,400	19	1.53	50	25	2.16	10
Liberty	2,900	3	1.03	61	8	2.75	6
Madison	14,900	20	1.34	56	14	.93	52
Manatee	83,500	390	4.67	9	179	2.14	12
Marion	65,500	204	3.11	26	76	1.16	45
Martin	23,900	106	4.43	12	21	.87	55
Monroe	82,500	122	1.47	54	52	.63	63
Nassau	19,500	30	1.53	50	13	.66	62
Okaloosa	85,000	191	2.24	37	60	.70	61

TABLE 12 -- Continued

		Active R.N.			Active L.P.N.		
County	Population**	Number	Ratio	Rank	Number	Ratio	Rank
Okeechobee	9,900	15	1.51	52	12	1.21	42
Orange	318,000	1644	5.16	5	625	1.96	16
Osceola	21,500	62	2.88	30	42	1.95	17
Palm Beach	304,300	1659	4.46	11	425	1.39	35
Pasco	52,000	147	2.82	32	77	1.48	32
Pinellas	450,000	3009	6.68	1	1283	2.85	3
Polk	244,000	748	3.06	27	420	1.72	22
Putnam	33,900	78	2.30	36	55	1.62	27
St. Johns	33,000	132	4.00	16	64	1.93	18
St. Lucie	49,500	180	3.63	20	45	.90	53
Santa Rosa	35,300	118	3.34	23	54	1.52	29
Sarasota	104,000	687	6.60	2	341	3.27	1
Seminole	73,000	206	2.82	32	90	1.23	39
Sumter	14,000	20	1.42	55	7	.50	65
Suwannee	17,300	26	1.50	53	49	2.83	4
Taylor	13,500	23	1.70	47	27	2.00	15
Union	6,600	4	.60	66	11	1.66	23
Volusia	168,000	858	5.10	7	498	2.96	2
Wakulla	5,700	3	.52	67	6	1.05	47
Walton	16,200	28	1.72	46	12	.74	60
Washington	11,800	22	1.86	44	16	1.35	36
			Mean			Mean	
Florida	6,202,000	26,545	2.87		11,457	1.45	

*Source: Calculated from Florida State Board of Nursing data (27).

**Source: Bureau of Business and Economics Research (9).

per 100,000 population with the removal of the decimal.) These are the number of nurses actively licensed only. The assignment by county was made according to the address on file at the Florida State Board of Nursing. It must not be assumed that all of the active Registered Nurses and Licensed Practical Nurses are all employed in the county indicated here. Furthermore, it must be assumed that a considerable number of these active nurses are not employed in nursing. An attempt is made later in this discussion to estimate the number actually employed in and out of county of residence. The calculated ratios of nurses per 1,000 population are ranked from greatest to least (Table 12).

Care must be taken to avoid reading too much into these ratios. They must be examined as indicators of trends only, and not as absolute measures in any sense. The ranges presented are interesting: the number of active Registered Nurses per 1,000 population ranges from highs of 6.68 for Pinellas, 6.60 for Sarasota, and 6.37 for Alachua to lows of .52 for Wakulla, .60 for Union, and .98 for Hamilton. The range of active Licensed Practical Nurses per 1,000 population range from highs of 3.27 for Sarasota, 2.96 for Volusia, and 2.85 for Pinellas to lows of .20 for Dixie, .24 for Hamilton, and .50 for Sumter. Median ratios were 2.79 for active Registered Nurses in Citrus County and 1.47 for active Licensed Practical Nurses in Clay County. It may be concluded that nurse population ratios by county show much variance in the number of active licensed nurses in residence.

Table 13 is a grouping of the counties in Florida by the economic trading areas. Shown are the number of active Registered Nurses and active Licensed Practical Nurses in each area. Totals for the State are also shown. The number of each category of nurse has been calculated for each trading area. These measures must be considered as companion presentations to the previous discussions concerning percentages and population. For active Registered Nurses, the Orlando, Tampa, and Miami areas are all above the State average of 426 active Registered Nurses per 100,000 population. The Mobile, Tallahassee, and Jacksonville areas are below the State mean. For active Licensed Practical Nurses the Mobile, Tampa, and Jacksonville areas are above the State average of 184 active Licensed Practical Nurses per 100,000 population. The Tallahassee, Orlando, and Miami areas are below the State mean.

Table 14 is a grouping of the counties of Florida by the areas of comparative growth, which have also been discussed in detail. Totals for the State, for North Florida, and for South Florida are shown. The numbers of active Registered Nurses and Licensed Practical Nurses are shown. Number of each type of nurse per 100,000 population has been calculated. Only two of the growth rate areas had higher nurse population ratios than the State mean; these were the twelve county 13.9 percent and the eight county 9.5 percent growth rate areas of the South Florida Metropolitan area. All but two areas had equal to or more than the State

TABLE 13

DISTRIBUTION OF ACTIVE NURSES IN FLORIDA BY ECONOMIC TRADING AREA WITH AREA POPULATION AND NURSES PER 100,000 POPULATION, June 30, 1968*

	Active R.N.		Active L.P.N.	
Area	Number	Ratio	Number	Ratio
A Mobile (4 counties)	1,075	323	668	201
B Tallahassee (14 counties)	916	272	605	180
C Jacksonville (17 counties)	3,016	339	1,696	190
D Orlando (8 counties)	4,002	449	1,545	172
E Tampa (14 counties)	7,283	452	3,702	229
F Miami (10 counties)	10,253	485	3,241	151
Florida (67 counties)	26,545	426	11,457	184

*Source: Calculated from Florida State Board of Nursing data (27).
**Source: Office of Business Economics Map (80).

TABLE 14

DISTRIBUTION OF ACTIVE NURSES IN FLORIDA BY COMPARATIVE GROWTH AREA WITH AREA POPULATION AND NURSES PER 1,000 POPULATION, JUNE 30, 1968*

Area and Growth Rate**	Registered Nurses		Licensed Practical Nurses	
	Number	Ratio	Number	Ratio
South Florida Metropolitan Area (9.8%)				
A (13.9%) (12 counties)	13,919	476	4,655	292
B (9.5%) (8 counties)	6,274	488	3,154	245
C (5.1%) (14 counties)	3,939	342	2,127	184
South Florida Rural Area (5.7%)				
D (5.7%) (4 counties)	157	305	79	153
North Florida Area (3.0%)				
E (0.1%) (22 counties)	482	193	367	147
F (6.4%) (7 counties)	1774	328	1075	199
Southern Florida (A,B,C,D) (38 counties)	24,259	448	10,015	185
Northern Florida (E,F) (29 counties)	2,256	285	1,442	186
Florida (67 counties)	26,545	426	11,457	184

*Source: Calculated from Florida State Board of Nursing data (27).
**Source: (55, p. 29).

average of active Licensed Practical Nurses in residence, these were the four county 5.7 percent South Florida Rural area and the twenty-two 0.1 percent North Florida area. Overall, the average ratios for active Licensed Practical Nurses in residence for both North and South Florida were approximately the State average. North Florida was much below the State average for active Registered Nurses in residence. South Florida was moderately above the State average.

Migration and Attrition

The number of nurses in Florida is constantly undergoing change. Nurses, like any other segment of the total State population, are subject to certain demographic processes. These processes of change continually result in additions to and subtractions from the population. The population of Florida is changed by migration, both positive and negative, through birth and death. The nurse population of the State is changed by the same and similar processes: nurses move in and out of the State; nurses die, become infirm or otherwise unable to practice; new nurses are added to the population through graduation from State nursing schools, and through successful completion of licensure examinations; other nurses allow their licenses to lapse or to attain inactive status; still other nurses with lapsed or inactive licenses activate their licensure status and enter the practicing nurse population.

There are two modes of viewing the nurse population of Florida. These two views are the result of definitions which are not mutually exclusive, and the differences are more than an exercise in semantics. The first definition considers the nurse population as all persons in Florida who are or have been nurses, whether licensed by Florida or not. This definition would include all actual or potential persons within the State who, if they were able and willing, could be actively licensed and enter the nurse services market. It would be desirable to explore this so-defined population, but such is beyond the scope of this study because the non-licensed resident potential nurse practitioner is an unknown quantity.

The second definition, and the one used in this study, is that the nurse population of Florida is the group of nurses who are actual residents of the State and who hold either active or inactive licensure by the Florida State Board of Nursing. This category excludes Florida license holders who, for some reason, reside outside the State. It also excludes those persons whose licenses have lapsed. This population definition has permitted this study to be undertaken since its membership is known.

A considerable portion of this latter class is actively engaged in full-time practice. Others are employed as nurses on a part-time or occasional basis. Other aspects of employment are discussed more fully in Chapter III, but it is important to note here that the really meaningful portion of the nurse population is that portion which is actually employed in nursing practice. The remaining active licensed, but non-employed in nursing, and inactive nurses represent a potential for service. The difference between actual and potential service sometimes becomes obscured in some discussions and comparisons.

It is important to consider some trends indicated in the study of three major elements of nurse population change: migration, in-state growth, and attrition. Attrition is here defined as the net apparent diminishing of the population through death, retirement, loss of licensure, and other means of reduction other than interstate migration indicated by endorsement. In-state growth is defined as additions to the nurse population through in-state education of nurses. Migration may be considered at two levels: interstate and intrastate exchange of nursing personnel.

Migration of Nurses

Florida has benefited from a constantly favorable balance of migration. Over the past decade relatively high levels of positive interstate migration have occurred. More nurses have come into the State and have taken up active licensure through endorsement than have active nurses who have left the State and requested endorsement to other states. Many of Florida's resident nurses move frequently. This intrastate migration ranges from simple change of address in the same locality to major moves within the State.

Table 15 provides data which show Florida's favorable balance of migration. Unfortunately data were not readily available for all years; consequently only 1963, 1967, and 1968 show full data with numbers of nurses endorsed into the State, numbers endorsed out, and net change due to interstate migration. The number of Registered Nurses endorsed into Florida has remained surprisingly constant over the decade with an annual average increase of 1,939. Licensed Practical Nurses have increased more proportionately to population trends with an annual average increase of 394 over the decade. It was estimated that there was a general population increase of 2.52 percent in 1967-1968; net in-migration of Registered Nurses was 5.69 percent, and net in-migration of Licensed Practical Nurses was 2.29 percent. If the admittedly insufficient data here presented would seem to indicate an increasing rate of out-migration of Registered Nurses versus a rather constant annual in-migration, then it would seem that the favorable balance would be decreasing. If this were true, then it would appear that the State would be required to educate more of its own nurses rather than depend on other states for the production of nurses.

Additional care must be taken when the apparent favorable balance is considered. The migration between states considered here is tied only to those nurses who sought endorsement either in or out of the State. An undetermined number of nurses licensed in other states move

TABLE 15

CHANGE IN NUMBERS OF ACTIVE NURSES LICENSED BY ENDORSEMENT INTO FLORIDA AND ENDORSEMENT OUT OF THE STATE, 1958-1968*

Year	Registered Nurses			Licensed Practical Nurses		
	Endorsed In	Endorsed Out	Net Change	Endorsed In	Endorsed Out	Net Change
1968	2,393	585	1,808	581	286	295
1967	2,224	653	1,571	531	250	281
1966	2,107	n.a	---	450	n.a.	---
1965	2,103	n.a.	---	418	n.a.	---
1964	2,044	n.a.	---	344	n.a.	---
1963	1,776	365	1,411	344	161	183
1962	1,850	n.a.	---	284	n.a.	---
1961	1,754	n.a.	---	298	n.a.	---
1960	1,930	n.a.	---	342	n.a.	---
1959	2,155	n.a.	---	356	n.a.	---
1958	2,588	n.a.	---	388	n.a.	---

*Source: Florida State Board of Nursing data (29).

into Florida each year and do not seek Florida licensure. In addition an unspecified number of nurses with Florida licensure leave the State. These persons may or may not request endorsement to other states, but maintain State licensure. The Florida license holders who move out-of-state, but who do not request endorsement out represent a de facto decrease in the migration balance. For instance: in 1968, there was a total of 585 Registered Nurses endorsed out of Florida, and at the same time there were 5,210 persons with Florida licensure who resided outside the State; some of the nurses in this latter figure represent an undetermined probable out-migration.

Table 16 is a reduction of the data of Table 15 into percentages of total nurses licensed. These statistics indicate that over the decade the proportion of in-migration to total nurse population of each type has remained relatively stable. A higher rate of in-migration is noted for Registered Nurses than for Licensed Practical Nurses. While there are insufficient data to indicate any concrete trend, the percentage endorsed out for both types of nurses may be growing. Continuing study of this trend should be made.

Several of the questions of the sample survey questionnaire were concerned with actual and anticipated migration of nurses in terms of intrastate and interstate movement. Table 17 shows the actual and anticipated movement of Florida's nurses within a five-year interval.

TABLE 16

PERCENT CHANGE OF TOTAL ACTIVE NURSES LICENSED BY ENDORSEMENT INTO FLORIDA AND ENDORSEMENT OUT OF THE STATE, 1958-1968*

Year	Registered Nurses			Licensed Practical Nurses		
	Percent Endorsed In	Percent Endorsed Out**	Percent Net Change	Percent Endorsed In	Percent Endorsed Out**	Percent Net Change
1968	7.53	1.84	5.69	4.50	2.21	2.29
1967	7.01	2.05	4.95	4.28	2.01	2.27
1966	7.41	---	---	4.00	---	---
1965	7.48	---	---	3.77	---	---
1964	8.17	---	---	3.51	---	---
1963	7.01	1.44	5.57	3.53	1.65	1.88
1962	7.73	---	---	3.08	---	---
1961	6.34	---	---	2.92	---	---
1960	8.63	---	---	4.11	---	---
1959	8.34	---	---	4.08	---	---
1958	11.51	---	---	4.95	---	---

*Source: Calculated from Florida State Board of Nursing data (29).

**Data available for the years 1963, 1967, 1968.

TABLE 17

ACTUAL AND ANTICIPATED MIGRATION OF NURSES IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968, THROUGH MARCH,1969*

Kind of Migration**	Registered Nurses		Licensed Practical Nurses	
	Active	Inactive	Active	Inactive
Recently Moved into Florida	14.8	4.5	7.9	3
Anticipate leaving Florida	5.8	3.6	3.9	3
Recently moved within Florida	10.8	13.4	10.5	0
Anticipate moving within Florida	4.9	6.2	5.7	4.2

*Source: Florida Nurse Study data (25).

**Range = 0 to 5 years.

***Percentage of those reporting.

Fourteen and eight-tenths of Florida's active Registered Nurses have moved into the State during the past five years, if the survey sample percentages are representative of the total population. Of the Registered Nurse sample, 5.8 percent anticipate leaving the State within the next five years (of this 2.5 percent expect to leave within six months, and 1.4 percent expect to leave six months to a year hence); 10.8 percent recently moved within the State; and 4.9 percent expect to move within the State during the next five years. Compared with active Licensed Practical Nurses, active Registered Nurses in the sample had a higher disposition to actual and anticipated interstate migration. Comparisons among the two types of active nurses show similar inclination toward intrastate migration.

A good indicator of the extent of interstate migration, at least as far as in-migration is concerned, is the listing of place of initial licensure found in Table 18. This table describes the distribution of the survey sample individual's place of initial licensure among the fifty states, the District of Columbia, and United States Territories and foreign countries. The percentage of Florida's nurses who were initially licensed within the State as estimated by the sample indicates a great indebtedness to other states. Florida initially licensed only 26.3 percent of its active Registered Nurses, and 42.9 percent of its inactive Registered Nurses. Licensed Practical Nurses are more likely to have had native State licensure, for 72.3

percent with active status and 86.7 percent with inactive status received their initial licensure from the State of Florida. The sample seems to indicate that Florida has depended more heavily upon outside sources for Registered Nurse personnel than Licensed Practical Nurse personnel, and that Licensed Practical Nurses tend to be less mobile.

Table 18 also indicates regional influences in the in-migration of nursing personnel. There has been little influx of nurses from the western portion of the United States, primary sources seem to have been (at least directly) from certain northeastern and certain southeastern states, but neither region as a uniform whole. Alabama, Georgia, Maryland, and Tennessee have supplied 2 or more percent each of the sample's active Registered Nurses. Illinois, Massachusetts, New Jersey, New York, Ohio, and Pennsylvania have supplied 4 or more percent each to the sample's active Registered Nurses. The District of Columbia, Georgia, and Tennessee have each supplied 1 or more percent of the State's Licensed Practical Nurses with active licensure. Massachusetts, Michigan, New York, and Pennsylvania have each supplied 2 or more percent of the State's active Licensed Practical Nurses. Four percent of the estimated active Registered Nurses received their initial licensure outside the United States, as did 0.5 percent of Licensed Practical Nurses.

Florida may not have received these estimated percents of nurses directly from the indicated states of

TABLE 18

STATE OF INITIAL LICENSURE AMONG NURSES IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER, 1968, THROUGH MARCH, 1969*

State	**Registered Nurses		Licensed Practical Nurses	
	Active	Inactive	Active	Inactive
Alabama	2.1	3.1*	0.2	-0-
Alaska	-0-	-0-	0.2	-0-
Arizona	-0-	-0-	-0-	-0-
Arkansas	0.3	-0-	0.2	-0-
California	0.4	1.0	-0-	-0-
Colorado	0.2	-0-	-0-	-0-
Connecticut	1.7	1.0	0.5	-0-
Delaware	0.4	-0-	-0-	-0-
District of Columbia	0.8	-0-	1.6	-0-
FLORIDA	26.3	42.9	72.3	86.7
Georgia	4.2	1.0	1.6	0.0
Hawaii	0.1	-0-	-0-	-0-
Idaho	-0-	-0-	-0-	-0-
Illinois	4.1	3.1	0.2	-0-
Indiana	2.0	-0-	0.9	-0-
Iowa	0.5	-0-	0.2	-0-
Kansas	0.1	2.0	-0-	-0-
Kentucky	1.0	-0-	-0-	-0-
Louisiana	1.1	1.0	0.2	-0-
Maine	0.9	1.0	0.2	-0-
Maryland	2.0	2.0	0.7	-0-
Massachusetts	4.2	5.1	2.5	6.7
Michigan	2.7	2.0	2.3	-0-
Minnesota	0.7	3.1	0.5	-0-
Mississippi	0.5	1.0	0.2	-0-
Missouri	1.5	4.1	0.9	-0-
Montana	-0-	-0-	-0-	-0-
Nebraska	0.4	-0-	-0-	-0-
Nevada	0.1	-0-	-0-	-0-
New Hampshire	0.3	-0-	0.5	-0-
New Jersey	4.0	2.0	1.1	-0-
New Mexico	-0-	-0-	-0-	-0-
New York	10.2	8.2	5.2	3.3
North Carolina	1.4	4.1	0.9	-0-
North Dakota	0.1	-0-	-0-	-0-
Ohio	4.8	5.1	0.7	-0-
Oklahoma	0.1	-0-	-0-	-0-
Oregon	0.2	-0-	-0-	-0-
Pennsylvania	7.2	5.1	2.0	-0-
Rhode Island	0.3	1.0	0.2	-0-
South Carolina	1.3	-0-	0.2	-0-
South Dakota	0.4	-0-	-0-	-0-
Tennessee	2.5	-0-	1.4	-0-
Texas	1.0	-0-	0.7	-0-

TABLE 18 -- Continued

State	Registered Nurses		Licensed Practical Nurses	
	Active	Inactive	Active	Inactive
Utah	-0-	-0-	-0-	-0-
Vermont	0.2	1.0	-0-	-0-
Virginia	1.9	-0-	0.7	3.3
Washington	0.1	-0-	-0-	-0-
West Virginia	1.6	-0-	0.7	-0-
Wisconsin	0.5	-0-	-0-	-0-
Wyoming	-0-	-0-	-0-	-0-
Territories and Foreign Countries	4.0	-0-	0.5	-0-

*Source: Florida Nurse Study data (25).
**Percentages of those reporting (1714 out of 1921).

initial licensure, but the suggested debt to other states is apparent.

Table 19 gives information which further substantiates the contention that Florida's nurses are highly mobile within the State. Intrastate migration was indicated by 8.4 percent and 5.1 percent address change for the survey sampling of active Registered Nurses and Licensed Practical Nurses respectively. The change in address indicated that the individual has made some sort of in-state move within the past year, which necessitated an address change. In addition, small percentages moved with no forwarding address made available, and three nurses were reported to be deceased.

Licensure Examinations

Florida has been engaged in a sustained effort to educate nurses. This effort is shown in part in the number of new nurses who are licensed each year by examination. Table 20 lists an enumeration of individuals who successfully passed the Florida State Board of Nursing examinations during the past decade, most of whom were graduates of Florida schools of nursing. The gross number of licenses issued by examination has grown for both Registered Nurses and Licensed Practical Nurses. Compared to the total Registered Nurses under active licensure the number of new licenses by examination has risen constantly. In 1958, the percentage of new licenses as compared to total Registered

TABLE 19

CHANGE OF ADDRESS OF NURSES WITH ACTIVE LICENSURE IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968, THROUGH MARCH,1968*

Address	Registered Nurses		Licensed Practical Nurses	
	Number	Percent	Number	Percent
Change in Address**	103	8.4	27	5.1
Address Correct**	1126	91.6	504	94.9
Moved, No Forwarding Address***	6	0.5	3	0.6
Address/Addressee Unknown***	10	0.8	8	1.5
Deceased***	2	0.2	1	0.2

*Source: Florida Nurse Study data (25).

**Percentage of those reporting (1919 out of 1921).

***Percentage of the original sample (n=2,000).

TABLE 20

NURSES LICENSED BY EXAMINATION, NUMBERS AND PERCENT OF TOTALS, 1958-1968*

Year	Total Number Nurses	Number Passed and Licensed	Percent of Total	Total Number Licensed	Number Passed and Licensed	Percent of Total
1968	31,755	771	2.42	12,906	581	4.50
1967	31,709	722	2.27	12,378	531	4.28
1966	28,434	638	2.24	11,231	450	4.00
1965	28,084	617	2.19	11,073	418	3.77
1964	25,002	489	1.99	9,793	344	3.51
1963	25,322	456	1.80	9,724	344	3.53
1962	23,925	398	1.66	9,192	284	3.08
1961	27,636	394	1.42	10,194	298	2.92
1960	22,353	371	1.65	8,317	342	4.11
1958	25,835	438	1.69	8,715	356	4.08
1958	22,472	319	1.41	7,824	388	4.95

*Source: Calculated from Florida State Board of Nursing data (29).

Nurses was 1.41; in 1968, the figure was 2.42 percent. The rate of new Licensed Practical Nurses licensed by examination has remained approximately at a constant level over the decade. It is doubtful that current levels of in-state production of nurses would adequately cover regular demands created by population increases and regular attrition from the service.

Rates of Loss and Gain

Limitations in the amount of data available prevented the generation of any meaningful trends in the rates of loss and gain among the active licensed nurses of Florida. It was possible, however, to calculate the rates of gain and apparent attrition for the 1967-1968 biennium. Table 21 describes the changes in the total number of nurses actively licensed by the Florida State Board of Nursing over the two-year period for both Registered Nurses and Licensed Practical Nurses. The gross gain for active Registered Nurses was determined to be 5,790 (20.36 percent) for the biennium; attrition was found to be 2,469 (8.68 percent); the resultant net gain was 3,321 (11.67 percent). The gross gain for Licensed Practical Nurses for the biennium was found to be 2,380 (21.19 percent); attrition was calculated to be 705 (6.22 percent); the resultant net gain was 1,675 (14.91 percent).

Gross gain was found by subtracting biennium endorsements out from the 1966 total and adding biennium endorsements in, re-registrations, and licenses issued by examination, the

TABLE 21

CALCULATED GROSS AND NET GAIN, AND ATTRITION RATES FOR NURSES WITH ACTIVE FLORIDA LICENSURE,1967-1968*

Year and Category	For Active Registered Nurses	For Active Licensed Practical Nurses
1966 Total Licensed	28,434	11,231
1967 Endorsed Out	- 653	- 220
1968 Endorsed Out	- 585	- 286
1967 Endorsed In	2224	531
1968 Endorsed In	2393	581
1967 Re-Registered	363	124
1968 Re-Registered	555	238
1967 Examination	722	551
1968 Examination	771	861
TOTAL (Gross Change)	34,224	13,611
1968 Total Licensed	31,755	12,906
ATTRITION (Biennial)	2,469 (8.68%)	705 (6.22%)
Gross Gain (Biennial)	5,790 (20.36%)	2,380 (21.19%)
Net Gain (Biennial)	3,321 (11.67%)	1,675 (14.91%)

*Source: Calculated from Florida State Board of Nursing data (26, 27).

sum of which was taken to be the gross change. Attrition was found by subtracting the actual licensure figures reported for 1968, from the column sum or gross change. Gross gain was found by subtracting the actual 1966 total from the column sum or gross change. The net gain was found by subtracting the attrition from the gross gain. This method assumes that, all other things being equal, the amount of attrition is equal to the difference between the actual population size at the end of the period and the sum of the population size at the beginning of the period plus accountable changes in the population during the period. In this case, the 1966, populations were increased by known endorsements in, re-registrations, and new licenses by examinations, and were diminished by known endorsements out. The population sums however were larger than the reported populations for 1968; the differences, the unknowns, were assumed to be the amount of attrition for the period. This attrition would account for persons who failed to re-register for reasons of illness, death, and retirement. This mode of determining rates of attrition and gain is concerned with populations of nurses under licensure only, and since it is tied directly to licensure, it does not directly relate to rates of gain and attrition from actual practice. Often the distinction is not made between losses from populations of actively employed nurses and populations of nurses with active licenses.

Meyer (58, p. 25) determined that the national rate of attrition among professional nurses (Registered Nurses) was approximately 4.8 percent between 1950 and 1956. The rate of gross gain was found to be about 7.1 percent. In addition it was estimated for that time that the loss due to Registered Nurses returning to school for educational advancement was approximately 0.2 percent. If Meyer's annual rates are assumed to be national means then it would appear that the statistics calculated above for the Florida biennium are similar.

An estimation of likelihood of change in licensure status is made in Table 22. More inactive Licensed Practical Nurses than Registered Nurses were estimated to seek active licensure within a six-year period, 21.9 percent and 17.9 percent respectively. Three and eight-tenths of the active Registered Nurses anticipated a change of inactive status, and 1.3 percent of the active Licensed Practical Nurses during the six-year period.

Summary

It was the purpose of this chapter, and the following chapter, to describe the nurse population of Florida. In particular, the number, location, saturation levels, growth rate patterns, migration patterns, and rates of attrition of Florida's nurses were shown.

Findings

1. In 1968, Florida had more nurses under licensure than ever before. For the period from 1958 to 1968, the

TABLE 22

ANTICIPATED CHANGE IN LICENSURE STATUS AMONG NURSES INCLUDED IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER, 1968, THROUGH MARCH, 1969*

Change**	Registered Nurses Active Percent	Registered Nurses Inactive Percent	Licensed Practical Nurses Active Percent	Licensed Practical Nurses Inactive Percent
No Change Anticipated	94.6	80.0	96.9	78.1
Change to Active Status	n.a.	17.9	n.a.	21.9
Change to Inactive Status	3.8	n.a.	1.8	n.a.
Unknown	1.6	2.1	1.3	-0-

*Florida Nurse Study data (25).

**Change period range = 6 years.

number of nurses licensed by the Florida State Board of Nursing showed uneven, but consistent, increase over the period. The biennial licensing of nurses created an uneven pattern of increase due to carry-over and lag effects in the number of licensees reported. Comparisons of total nurses licensed with estimated State population size over the decade showed a general increase in the ratio of nurses to general population for both active Registered Nurses and for active Licensed Practical Nurses. The estimated numbers of active nurses in Florida with full-time practice were shown to be in a general pattern of increase over the decade. Nurses in full-time employment were estimated to be much less than all nurses licensed to practice in the State. Nurse-general population ratios compared favorably with other southeastern states, but did not compare favorably with national reported levels, or with goals established by the profession.

2. Florida's nurses, both Registered Nurses and Licensed Practical Nurses, were shown to be distributed across the State in an inequitable manner. Wide variations in saturation levels of nursing personnel available were found to exist among Florida's counties and geographic areas. These disproportions were found to exist in terms of both the number of both types of nurses compared to population unit, and in terms of proportionate mix between active Registered Nurses, and active Licensed Practical Nurses. Levels of potential nursing services (active

licensees) available was found to vary by county and geographic area. High levels of shortage were indicated for many areas. Urban centers tended to have higher levels of nursing services available than did predominantly rural areas. Certain county regional groupings, and certain counties were favored with comparatively high numbers of nurses per population unit.

3. It was shown that the nurse population of Florida is constantly changing. The nurse population was found to be highly mobile, both within the State and among states. It was also shown that Florida depends heavily upon other states for nurses. More nurses were shown to enter the State each year than were shown to leave the State. Net positive in-migration of nurses was found to be greater proportionally than the general population increase due to in-migration from other states. A trend was indicated that proportionately more Registered Nurses were being educated in Florida, but that the proportion of Licensed Practical Nurses educated in the State remained approximately constant. It was shown that attrition among Florida's active nurses of both licensure types approached national norms.

Conclusions

It may be concluded from the presentations of this chapter that Florida benefited by increasing levels of nursing services in terms of estimated full-time practicing nurses compared to general population size. It is also apparent, however, that aggregate statewide and regional shortages exist. Much of this shortage is due to insufficient total numbers of nurses in the State; but, in addition, much of the shortage is due to the demonstrated fact that too few of the nurses who are able and licensed to practice do not in actuality practice nursing in Florida. In addition, it was shown that Florida depends heavily upon other states for the production of its nurses. While Florida tends to educate more nurses in terms of both numbers and proportion, there is a pressing need for the State to produce more of its own nurses, if the expanding demands for nursing services are to be met.

CHAPTER III

THE PRESENT PRACTICE OF NURSING IN FLORIDA: EMPLOYMENT, EDUCATIONAL, AND DEMOGRAPHIC CHARACTERISTICS OF THE NURSE POPULATION

This portion of the study, like Chapter II, is concerned with the building of a foundation of information about the nurses of Florida in order to better plan for the development of nurse education within the State. Chapter III is therefore a companion to and a continuation of Chapter II.

In this chapter the nurse population is examined with respect to selected employment characteristics, levels and type of general and nursing educational attainment, and some basic demographic variables.

Employment Characteristics

The gross number of nurses licensed to practice within a given geographic area is a parameter of relative value. This is because while the total number of actively licensed nurses may practice they are, for certain, not all employed as nurses. It is therefore important to know how many of the potentially employable are actually employed. And if the number employed is determined, it is still insufficient information, for the character of this employment must also be determined. This portion of the study gives some statistics which relate to these and other concerns about the employment of nurses.

Estimates of Nurses Employed

It was not possible in this study actually to determine the exact number of nurses employed due to the level of support available for the project. It was possible, however, to take a sample which could be used as an estimator of the total population. Proportions of employed nurses found in the sample were applied to known numbers of licensed nurses in given areas; and, based upon these proportions, estimates of the total population were made. Attention was paid to unemployment in nursing as well as nursing to personnel in practice. Reasons for non-employment as nurses were explored. Analysis was made at four interrelated levels: The State as a unit, economic trading areas, comparative growth rate areas, and selected urban areas. A breakdown was made of reasons given by nurses in the sample for not practicing.

Table 23 shows the employment status of the nurses polled in the Florida Nurse Study sample survey. Of 1,239 Registered Nurses with active licensure 684 (55.20 percent) were employed full-time as nurses, 144 (11.62 percent) were employed on a part-time basis as nurses, 52 (4.19 percent) were employed as nurses on an irregular or occasional basis, 47 (3.79 percent) were employed in other health fields, 19 (1.53 percent) were employed in other employment, a total of 288 (23.24 percent) were unemployed, two persons were known

TABLE 23

EMPLOYMENT STATUS OF FLORIDA NURSE STUDY SAMPLING OF ACTIVE AND INACTIVE LICENSED NURSES IN FLORIDA, AS ESTIMATED DURING THE PERIOD FROM OCTOBER, 1968, THROUGH MARCH, 1969*

	Registered Nurses		Licensed Practical Nurses	
Status	Number	Percent	Number	Percent
Total Sample**	1410	-----	590	-----
Active Licensure	1239	100.00	536	100.00
Employed Full-Time (In nursing)	684	55.20	303	56.52
Employed Part-Time (In nursing)	144	11.62	41	7.64
Employed Irregularly (In nursing)	52	4.19	34	6.34
Employed in other health fields	47	3.79	13	2.42
Other Employment	19	1.53	16	2.98
Unemployed	288	23.24	113	21.08
Deceased	2	.16	3	.55
Unknown	3	.24	13	2.42
Inactive Licensure	171	100.00	54	100.00
Employed in other health fields	5	2.92	3	5.55
Other Employment	5	2.92	2	3.70
Unemployed	4	2.33	1	1.85
Deceased	1	.58	3	5.55
Unknown, or Assumed Retired	156	91.22	45	83.33

*Source: Florida Nurse Study data (25).

**Original total sample n=2000; percentages relate to the subsamples.

to be deceased, and three had an unknown status. Of 171 inactive Registered Nurses,151 (91.22 percent) were of unknown employment status or considered retired, five were employed in other health fields, five had other types of employment, four were unemployed, and one was known deceased. Of 536 active Licensed Practical Nurses,303 (56.52 percent) were employed as full-time nurses, 41 (7.64 percent) were employed as part-time nurses, 34 (6.34 percent) were employed on an irregular or occasional basis, 13 (2.42 percent) were employed in other health fields, 16 (9.98 percent) held other non-health oriented employment, 113 (21.08 percent) were unemployed, three were deceased, and 13 were of unknown status. Of 54 inactive Licensed Practical Nurses,45 (83.33 percent) were of unknown or presumed retired status, three were unemployed in other health fields, two held other types of employment, one was considered unemployed, and three were known to be deceased. These survey results indicate that large portions of the Florida nurse population is not employed in nursing. Many active nurses who potentially could offer their services in the nurses services market do not do so. Many of those active nurses who are employed are not employed full-time. Care must be taken when figures concerning the number of nurses employed are discussed, for there is a considerable difference between the number of nurses employed and the full-time equivalency of the employment of those nurses. Note was also taken of the high percentages of active Registered and Licensed

Practical Nurses who, for reasons which will be discussed below, were not employed as nurses; 23.24 percent and 21.08 percent respectively. The proportional unemployment level is greater by 2.12 percent for Registered Nurses than for active Licensed Practical Nurses. More Licensed Practical Nurses were employed full-time than are Registered Nurses, by 1.32 percent; more Registered Nurses were employed on a part-time basis, by 3.98 percent; and more Registered Nurses were employed on an occasional or irregular basis, by 1.85 percent. It is also interesting that more Registered Nurses than Licensed Practical Nurses were employed in health fields other than nursing, by 1.37 percent, but more Licensed Practical Nurses were employed in other non-health related fields than Registered Nurses, by 1.45 percent according to survey sample estimations.

Table 24 estimates the proportional numbers of nurses present in the above discussed categories. The percentages found in the sample, and presented in Table 23, were used as multipliers in the calculation. These figures represent estimations only, but are reasonably accurate approximations of the actual numbers in each category.

Tables 25 and 26 display estimated numbers of nurses employed, and employed nurse-population ratios for Florida divided by economic trading areas, and by comparative growth areas, respectively. This is much the same kind of data as presented in Tables 13 and 14 in Chapter II, with the exception that total numbers of licensed nurses, employed and

TABLE 24

EMPLOYMENT STATUS OF LICENSED NURSES IN FLORIDA PROPORTIONAL TO SAMPLE FINDINGS OF THE FLORIDA NURSE STUDY SURVEY, AS ESTIMATED DURING THE PERIOD FROM OCTOBER, 1968, THROUGH MARCH, 1969*

Status**	Registered Nurses	Licensed Practical Nurses
Total Licensed***	30,266	12,673
Active Licensure***	26,545	11,457
Employed Full-Time (in nursing)	14,653	6,475
Employed Part-Time (in nursing)	3,085	875
Employed Irregularly (in nursing)	1,112	726
Employed in other Health Fields	1,006	277
Other Employment	406	341
Unemployed	6,169	2,415
Deceased	42	63
Unknown	64	277
Inactive Licensure***	3,812	1,216
Employed in other Health Fields	111	67
Other Employment	111	45
Unemployed	89	22
Deceased	22	67
Unknown or Assumed Retired	3,477	1,013

*Source: Florida Nurse Study data (25).

**Total Florida licensed nurse population was 43,030 in 1968.

***Actual licensure figures, all others estimated.

TABLE 25

ESTIMATED NUMBER OF NURSES EMPLOYED AND NURSE-POPULATION RATIOS, PROPORTIONATE TO FLORIDA NURSE STUDY SAMPLE FINDINGS BY ECONOMIC TRADING AREA, OCTOBER,1968,THROUGH MARCH, 1969*

	Registered Nurses		Licensed Practical Nurses	
Area**	Number	Ratio***	Number	Ratio***
A Mobile	763	229	471	142
B Tallahassee	650	193	427	127
C Jacksonville	2142	241	1196	134
D Orlando	2842	319	1089	121
E Tampa	5172	321	2610	161
F Miami	7281	344	2285	106
FLORIDA	18,850	302	8078	130

*Source: Estimated from Florida Nurse Study (25).

**Multipliers of0.7101 and 0.7050 were used for Registered Nurse and Licensed Practical Nurse employment rates respectively.

***Nurses employed per 100,000 general population.

TABLE 26

ESTIMATED NUMBER OF NURSES EMPLOYED AND NURSE* POPULATION RATIOS, PROPORTIONATE TO FLORIDA NURSE STUDY SAMPLE FINDINGS BY COMPARATIVE GROWTH AREA, OCTOBER,1968, THROUGH MARCH, 1969*

	Registered Nurses		Licensed Practical Nurses	
Area**	Number	Ratio***	Number	Ratio***
South Florida Metropolitan Area (9.8%)				
A (13.9%)	9,884	338	3,282	206
B (9.5%)	4,455	347	2,224	173
C (5.1%)	2,797	243	1,500	130
South Florida Rural Area (5.7%)				
D (5.7%)	112	217	56	108
North Florida Area (3.0%)				
E (0.1%)	342	137	259	104
F (6.4%)	1260	233	758	140

*Source: Estimated from Florida Nurse Study data (25).

**Multipliers of 0.7101 and 0.7050 were used for Registered Nurse and Licensed Practical Nurse employment rates respectively.

***Nurses employed per 100,000 general population.

unemployed, were shown there. Employment levels relate to all types of employment and includes full-time, part-time, and occasional work. The employment levels and ratios in Tables 25 and 26 show proportionately the same relationships previously discussed in Chapter II. Patterns of nurses employed as well as the level of nursing available vary from area to area; some areas depended more heavily upon Licensed Practical Nurses than Registered Nurses, while other areas had a reversed situation. In terms of analysis by economic trading area, the Miami area was richest in Registered Nurse services while the Tallahassee area was poorest; the Tampa area was richest in Licensed Practical Nurse services while Miami was the poorest. Analysis by comparative growth area shows that the South Florida Metropolitan 9.5 percent area had the highest level of Registered Nurse services, and the North Florida 0.1 percent area has the lowest; the South Florida Metropolitan 13.9 percent area had the highest level of Licensed Practical Nurse services, and again the North Florida 0.1 percent area had the lowest.

Table 27 is an estimation of the Registered and Licensed Practical Nurses who were employed during the survey period. These estimations were determined (as were the previous two tables) by multiplying the active resident nurse populations of each area by an appropriate factor which was determined in the survey. In this case the factor for employed Registered Nurses was 0.7101 (71.01

TABLE 27

ESTIMATED NUMBER OF NURSES EMPLOYED AND NURSE-POPULATION RATIOS FOR SELECTED COUNTIES IN FLORIDA PROPORTIONATE TO FLORIDA NURSE STUDY SAMPLE FINDINGS, OCTOBER,1968, THROUGH MARCH,1969*

County and	Population**	Registered Nurses		Licensed Practical Nurses	
(county seat)	***	Number	Ratio****	Number	Ratio
Alachua(Gainesville)	95,000	430	4.52	167	1.76
Bay (Panama City)	69,000	146	2.12	92	1.33
Brevard (Titusville)	231,000	666	2.88	129	0.55
Broward (Ft.Lauderdale)	498,400	1824	3.66	525	1.05
Dade (Miami)	1,139,500	3867	3.39	1334	1.17
Duval (Jacksonville)	515,100	1178	2.29	746	1.45
Escambia (Pensacola)	195,600	524	2.68	382	1.95
Hillsborough(Tampa)	460,000	1250	2.25	786	1.71
Lake (Tavares)	65,400	183	2.81	66	1.00
Lee (Fort Myers)	83,200	256	3.07	70	0.84
Leon (Tallahassee)	91,000	278	3.04	146	1.60
Manatee (Bradenton)	83,500	277	3.32	126	1.51
Marion (Ocala)	65,500	143	2.21	53	0.82
Monroe (Key West)	82,500	85	1.04	37	0.44
Okaloosa (Crestview)	85,000	136	1.59	42	0.49
Orange (Orlando)	318,000	1167	3.66	440	1.38
Palm Beach (West Palm Beach)	304,300	1178	3.17	299	0.98
Pasco (Dade City)	52,000	104	2.00	54	1.04
Pinellas (Clearwater)	450,000	2137	4.74	905	2.01
Polk (Bartow)	244,000	531	2.17	296	1.00
Saint Lucie (Fort Pierce)	49,500	128	2.58	32	0.63
Sarasota (Sarasota)	104,000	488	4.69	240	2.30
Seminole (Sanford)	73,000	146	2.00	63	0.87
Volusia (DeLand)	168,000	609	3.62	351	2.09
Florida					

*Source: Florida Nurse Study data (25)

**Source: Bureau of Business and Economic Research (9).

***Multipliers of 0.7101 and 0.7050 were used for Registered Nurse and Licensed Practical Nurse employment rates respectively.

****Nurses employed per 1,000 general population.

percent) of all active license holders, and for employed Licensed Practical Nurses the factor was 0.7150 (71.50 percent) of all active resident license holders. Twenty-four counties were selected for presentation, each having a total estimated 1968 population of 50,000 or more. Saint Lucie county with an estimated population of 49,500 was included because of its borderline relationship. It is apparent that if the statistics presented in Table 27 are reasonably accurate the levels of service available vary from the relatively high to the relatively low. It must be assumed that if these figures are correct that some differential in the availability and quality of nursing services must be present among this pronounced differential in employment levels.

Estimated Causes of Unemployment

According to responses given in the sample survey of the Florida Nurse Study, many of Florida's nurses were unemployed. They were not employed as nurses for a variety of reasons, some of which could be corrected.

The primary cause of unemployment was that most of the State's nurses were found to be women, many of whom had conflicting family responsibilities. Pregnancy was a primary cause of this type of unemployment, but other nurses were not employed because of their felt need to remain in the home with their children and other responsibilities of homemaking. Many nurses (see comments listed in Appendix C) did not believe that the level of remuneration for their professional services justified absence from their homes, especially when their net disposable income was reduced by transportation costs, domestic help costs, cost for keeping their children in nurseries, and other related expenses. Table 28 lists the following percentages for nurses who reported that they were not employed as nurses because of family responsibilities: 48.0 percent of active, and 43.7 percent of inactive Registered Nurses; and 28.6 percent of active, and 45.7 percent of inactive Licensed Practical Nurses. It is interesting that proportionally almost double the active Registered Nurses were unemployed because of family reasons than were active Licensed Practical Nurses. Retirement was the next ranking reason for unemployment, but surprisingly low percentages of inactive as well as active nurses admit that retirement was the cause of their unemployment. Judging from the survey returns, it seems that few nurses consider themselves finally retired from their profession until they are physically unable to work. Comments seem to indicate they feel a calling to service in their profession which transcends any limited concept of employment for remuneration only; it would seem that many nurses continue in employment despite poor employment conditions and low status. Personal health reasons were the third most prevalent cause of unemployment. Percentages listed in the table tend to indicate that, active and inactive, more Licensed Practical Nurses were unemployed because of health (excluding pregnancy) than were Registered

TABLE 28

REASONS FOR UNEMPLOYMENT IN NURSING AMONG NURSES INCLUDED IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968, THROUGH MARCH,1969*

	Registered Nurses		Licensed Practical Nurses	
Reason**	Active	Inactive	Active	Inactive
Family Responsibilities, including pregnancy	48.0	43.7	28.6	45.7
Personal Health Reasons, not including pregnancy	8.3	8.7	21.4	11.4
Retirement	12.6	32.0	13.6	20.0
Difficulty in finding employment	1.5	-0-	1.4	2.9
Other, More Desirable employment opportunities	3.6	1.9	7.1	8.6
Low pay, as a nurse	4.5	1.9	10.7	2.9
Low status, or lack of respect, as a nurse	.9	-0-	-0-	-0-
Need for more training or education	1.8	-0-	1.4	2.9
Other***	17.7	11.7	15.7	5.7

*Source: Florida Nurse Study data (25).
**Percentages represent distribution among 611 total responses.
***A frequent response noted in this category was, "poor working hours."

Nurses. Some less important reasons for unemployment of nurses in Florida included the following: difficulty in finding suitable employment; low status, or lack of respect as a nurse; and the need for more training, or education. Among the active categories of both types of nurses, of low pay and other, more desirable employment opportunities were cited as major causes of non-nursing employment. It would seem that more active and inactive Licensed Practical Nurses were not employed as nurses because of low pay and/or other better paying employment than were active and inactive Registered Nurses. It was also noted in the survey, that in the miscellaneous category of causes, of poor working hours were frequently cited. Poor working conditions in general appear to contribute to nurse unemployment.

Estimated Fields of Practice

It is essential to know in what general fields of practice active nurses are employed. Fields of practice relate to the type of establishment and the general nature of employment rather than the level of employment role of the individual. Comparisons are made for the State, for economic areas, and for growth rate areas.

Table 29 shows the distribution by field of practice among those nurses in the Florida Nurse Study sample who reported themselves to be actively practicing in the State. These percentages include all three types of employment: full-time, part-time, and occasional work. Most of Florida's nurses are employed in hospitals of some type. Since the

TABLE 29

FIELDS OF PRACTICE OF FLORIDA NURSE STUDY SAMPLING OF ACTIVE EMPLOYED NURSES IN FLORIDA, OCTOBER, 1968, THROUGH MARCH, 1969*

Field**	Registered Nurses Percent	Licensed Practical Nurses Percent
Hospitals	58.1	55.6
Nursing Homes (or extended care facilities)	5.5	14.4
Physician's Offices	9.8	12.3
Dentists' offices	1.4	-0-
Other offices	0.6	0.5
Public Health (other than schools)	5.3	0.3
Private duty	8.4	15.6
Schools	1.2	-0-
Industry	1.7	0.3
Nursing education	2.8***	-0-
Other	5.2	1.0

*Source: Florida Nurse Study data (25).
**Percentages represent distribution among 1302 total responses.
***This percentage appears unreasonably high.

majority of the hospital beds in the State are in general hospitals, it can be assumed that most of Florida's nurses who are employed in hospitals are employed in general hospitals rather than special hospitals. Of the Registered Nurses reporting, 58.1 percent were employed in hospitals, and 55.6 percent of Licensed Practical Nurses were so employed. The next highest frequency of employment field was that of office practice. More Licensed Practical Nurses were employed in physicians' offices than were Registered Nurses, though both were considerable--12.3 percent, and 9.8 percent respectively. A few Registered Nurses were employed in the offices of dentists. More Licensed Practical Nurses were employed in nursing homes and extended care facilities than were Registered Nurses. More Licensed Practical Nurses than Registered Nurses were employed in private duty situations. A moderate proportion of the Registered Nurses were employed in public health, school, industrial, and nursing education (though nursing education seems inappropriately high). Few or no Licensed Practical Nurses were listed in these categories.

Table 30 is an approximation of the number of nurses employed in Florida. The proportions used for Table 29 were used to calculate the estimated numbers in the various categories.

Distribution of percentages of active nurses employed in the various fields of service is made in Table 31 by economic trading area. A second analysis by area of

TABLE 30

ESTIMATED EMPLOYMENT BY FIELDS OF PRACTICE OF ACTIVE NURSES IN FULL-TIME PRACTICE IN FLORIDA PROPORTIONATE TO FINDINGS OF THE FLORIDA NURSE STUDY, OCTOBER,1968, THROUGH MARCH,1969*

Field**	Registered Nurses Number	Licensed Practical Nurses Number
Hospitals	8513	3600
Nursing homes (or extended care facilities)	805	932
Physician's Offices	1465	796
Dentists' offices	205	-0-
Other offices	88	32
Public Health (other than schools)	777	19
Private Duty	1230	1010
Schools	176	32
Industry	249	
Nursing education	410***	-0-
Other	761	6

*Source: Florida Nurse Study data (25).
**Estimated frequencies include full-time categories only.
***This estimation is questionable.

TABLE 31

ESTIMATED PERCENT EMPLOYMENT IN FIELDS OF PRACTICE OF ACTIVE NURSES IN FLORIDA, BY ECONOMIC AREA, PROPORTIONATE TO FLORIDA NURSE STUDY FINDINGS, OCTOBER,1968, THROUGH MARCH,1969*

Field of Employment**	AREA											
	A		B		C		D		E		F	
	RN	LPN	RN	LPN	RN	LPN	RN	LPN	RN	LPN	RN	LPN
Hospitals	62.3	66.7	73.5	45.5	50.7	46.0	48.6	54.5	57.0	56.8	65.6	72.7
Nursing Homes	3.5	11.1	-0-	4.5	7.5	18.0	8.0	13.0	4.4	17.1	3.1	9.1
Physician's offices	7.0	14.8	11.8	22.7	18.7	10.0	8.8	16.3	7.3	8.2	15.6	9.1
Dentist's Offices	1.8	-0-	-0-	-0-	0.7	-0-	-0-	-0-	2.9	-0-	-0-	-0-
Other offices	-0-	-0-	-0-	-0-	0.7	-0-	-0-	-0-	1.2	0.7	-0-	-0-
Private Duty	5.3	7.4	2.9	27.3	5.2	24.0	9.2	13.0	10.5	15.8	9.4	9.1
Public Health	6.1	-0-	2.9	-0-	3.7	-0-	5.6	0.8	5.8	-0-	3.1	-0-
Schools	-0-	-0-	-0-	-0-	0.7	-0-	1.6	-0-	1.5	-0-	3.1	-0-
Industry	2.6	-0-	-0-	-0-	3.7	-0-	0.8	0.8	1.5	-0-	-0-	-0-
Nursing education	4.4	-0-	2.9	-0-	2.2	-0-	2.4	-0-	2.9	-0-	-0-	-0-
Other	7.0	-0-	5.9	-0-	6.0	2.0	4.8	0.8	5.0	1.4	-0-	-0-

*Source: Florida nurse Study data (25).

**Percentages represent distribution among 1295 total responses.

comparative growth is made in Table 32. These two distributions show differences in the percentages of fields of employment for different divisions of the State in terms of: first, economically related counties, and, second, by counties with similar growth rate patterns. These two types of analysis were previously discussed in Chapter II. Both tables indicate differentials of variances from the State percentage norms for almost all area categorizations, but some apparent differences were emphasized by relatively small numbers of responses which fell into some of the subcategories.

Estimated Types of Positions

Types of positions or nursing capacities relate to categories which tend to peg nurses in practice at specific levels and specific roles. This aspect of the study is related to the immediately previous section on field of practice. Both types of analysis tend to overlap in some respects, but each gives singular information. This analysis is made for the State, with real and estimated data presented. The proportions of active nurses in practice who give direct bedside and patient care are discussed.

Table 33 shows the percentage distributions by type of active employed Florida nurses among the survey sample. Much difference is indicated between the nursing capacities of Registered Nurses and Licensed Practical Nurses. Few Licensed Practical Nurses held positions of leadership, as indicated by questionnaire responses. Some specialization

TABLE 32

ESTIMATED PERCENT EMPLOYMENT IN FIELDS OF PRACTICE OF ACTIVE NURSES IN FLORIDA, BY COMPARATIVE GROWTH AREA, PROPORTIONATE TO FLORIDA NURSE STUDY FINDINGS, OCTOBER, 1968, THROUGH MARCH, 1969*

Field of Employment**	AREA											
	A		B		C		D		E		F	
	RN	LPN	RN	LPN	RN	LPN	RN	LPN	RN	LPN	RN	LPN
Hospitals	55.7	53.9	57.7	57.1	58.8	54.8	66.7	33.3	76.9	80.0	69.1	56.8
Nursing Homes	4.7	17.6	8.4	13.3	5.9	9.5	-0-	33.3	3.8	-0-	1.8	8.1
Physicians' offices	10.5	8.3	8.4	14.3	9.6	23.8	-0-	-0-	7.7	20.0	12.7	13.5
Dentist's offices	2.4	-0-	-0-	-0-	1.5	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Other offices	1.1	0.5	-0-	1.0	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Private Duty	9.0	18.1	10.2	11.4	5.1	11.9	16.7	33.3	-0-	-0-	7.3	21.6
Public Health	5.1	-0-	5.6	1.0	5.1	-0-	16.7	-0-	7.7	-0-	3.6	-0-
Schools	1.3	-0-	1.4	-0-	0.7	-0-	-0-	-0-	-0-	-0-	1.8	-0-
Industry	2.1	-0-	0.9	1.0	2.2	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Nursing Education	2.8	-0-	2.8	-0-	3.7	-0-	-0-	-0-	3.8	-0-	-0-	-0-
Other	5.4	1.6	4.7	1.0	7.4	-0-	-0-	-0-	-0-	-0-	3.6	-0-

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1295 total responses.

TABLE 33

NURSING CAPACITIES OF FLORIDA NURSE STUDY SAMPLING OF ACTIVE EMPLOYED NURSES IN FLORIDA, OCTOBER, 1968, THROUGH MARCH, 1969*

Capacity	Registered Nurses Percent	Licensed Practical Nurses Percent
Hospital Director of Assistant	1.6	0.3
Supervisor or Assistant	7.6	0.5
Head Nurse or Assistant	15.0	1.8
Hospital Staff Nurse	30.3	44.9
Nurse Anesthetist	2.4	-0-
Nursing Home Nurse	4.4	14.2
Public Health Administrator	1.4	-0-
Public Health Staff Nurse	4.2	0.3
Educator, Professional Nurse	2.7***	-0-
Educator, Practical Nurse	1.0***	1.8***
Industrial Nurse	1.4	0.3
Private Duty Nurse	10.0	14.2
Office Nurse		
Physician's	6.8	9.8
Dentists'	3.3	4.0
School Nurse	1.0	-0-
Other	6.9	7.9

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1288 total responses

***These percentages appear to be unreasonably high.

was noted among the sample responses in addition to nurse anesthetists. Table 34 is an approximation of the numbers of employed nurses in the State as estimated from sample percentages presented in Table 33.

Table 35 shows the relative proportions among practicing nurses who responded to the questionnaire with respect to the percentage of time which was spent with actual patient care and bedside nursing. It is interesting to note that while the proportions for Registered Nurses are approximately equal for the four percentages indicated, the percentages of bedside and patient care extended by Licensed Practical Nurses is progressively weighted toward increasingly higher levels of actual service of this type. In other words, more Licensed Practical Nurses appear to give direct care to patients than do Registered Nurses.

Other Employment Characteristics

This portion of the study is concerned with a potpourri of sample data that add depth and dimension to other data presented heretofore on the employment of nurses in Florida. Sample data are presented with regard to: the length of the work week for both full-time, and for part-time active nurses; of work hours for these nurses; the distance from residence to place of work, and if employed in the same county of residence; income data in terms of amount, percentage of family support, size of family, and opinion as to the fairness of remuneration; duration of career, with notation of interruption in career and cause; and notation of Federal employ.

TABLE 34

ESTIMATED EMPLOYMENT BY NURSING CAPACITIES OF ACTIVE NURSES IN FLORIDA PROPORTIONATE TO FINDINGS OF THE FLORIDA NURSE STUDY, OCTOBER,1968, THROUGH MARCH,1969*

Capacity**	Registered Nurses Number	Licensed Practical Nurses Number
Hospital Director or Assistant	302	24
Supervisor or Assistant	1433	40
Head Nurse or Assistant	2828	145
Hospital, Staff Nurse	5712	3626
Nurse Anesthetist	452	-0-
Nursing Home Nurse	829	1447
Public Health Administrator	264	-0-
Public Health, Staff Nurse	792	24
Educator Professional Nurse	509***	-0-
Educator, Practical Nurse	188***	145***
Industrial Nurse	264	24
Private Duty Nurse	1885	1147
Office nurse - Physician's	1282	791
Dentist's	622	323
School Nurse	188	-0-
Other	1301	638

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*Source: Florida Nurse Study data (25).

**Estimated frequencies include part-time and irregular categories of practice as well as full-time.

***These estimated frequencies are questionable.

TABLE 35

PROPORTION OF TIME ALLOCATED TO BEDSIDE NURSING AND DIRECT PATIENT CARE BY PARTICIPANTS IN THE FLORIDA NURSE STUDY, OCTOBER,1968, THOUGH MARCH, 1969*

Percent Time**	Registered Nurses Percent	Licensed Practical Nurses Percent
0 -25%	24.9	7.9
26-50%	23.4	16.7
51-75%	21.6	18.7
76-100%	30.2	57.7

*Source: Florida Nurse Study data (25).
**Percentages represent distribution among 1194 total responses.

Table 36 gives a distribution of the work week lengths among the practicing nurses in the State. The percentages include nurses who work as nurses on occasional, part-time, and full-time bases. The statistics presented in the table indicate that the nurses included in the sample were most likely to have been employed 40 hours per week. Nurses, according to the data, were more likely to be employed less than 40 hours per week than more than forty; factors concerning overtime pay rates probably influence this.

Table 37 shows percentages for time of work among the practicing nurses in the sample. More Registered Nurses were more likely to be employed on morning shifts or on a nine a.m. to five p.m. basis than were Licensed Practical Nurses. Licensed Practical Nurses were more apt to be employed on evening, night, or rotating shifts than were Registered Nurses.

Table 38 shows the percentages of responses among the survey sample of practicing nurses in the State who indicated the distance from the place of their place of residence to the place of employment. For practicing Registered Nurses, 55.2 percent were at a distance of five or less miles; 79.8 percent were within ten miles, and 91.4 percent were within 15 miles. Licensed Practical Nurses lived 57.1 percent within five miles; 78.9 percent within ten miles, 88.6 percent lived within fifteen miles of the place of their employment. Only 8.5 percent of practicing

TABLE 36

HOURS WORKED PER WEEK AMONG ACTIVE NURSES IN PRACTICE IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968, THROUGH MARCH,1969*

Average Hours Worked per week**	Registered Nurses Percent	Licensed Practical Nurses Percent
30 and less	16.2	10.2
31	-0-	-0-
32	3.5	1.6
33	-0-	-0-
34	-0-	-0-
35	1.3	0.6
36	1.2	0.6
37	0.1	0.3
38	0.3	0.6
39	-0-	-0-
40	61.9	66.8
41	0.3	-0-
42	1.4	2.2
43	0.3	-0-
44	2.2	1.6
45	2.1	0.6
46	0.5	-0-
47	-0-	-0-
48	2.4	6.4
49 and more	6.5	8.3
Mean	39.27 hours	39.60 hours
Median	39.50 hours	38.83 hours
Range	2 to 84 hours	8 to 80 hours

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*Source: Florida Nurse Study data (25).

**Frequency distribution includes part-time and occasional employment as well as full-time employment. Percentages represent distribution among 1092 total responses.

TABLE 37

TIME OF WORK OF FULL-TIME ACTIVE PRACTICING NURSES INCLUDED IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968, THROUGH MARCH,1969*

Time**	Registered Nurses Percent	Licensed Practical Nurses Percent
Morning	35.6	34.5
Evening	19.6	24.2
Night	13.3	16.3
Nine to Five	17.4	11.3
Rotating Shift	4.4	5.0
Other	9.7	8.7

*Source: Florida Nurse Study data (25).
**Percentages represent distribution among 1288 total responses.

TABLE 38

DISTANCE FROM RESIDENCE TO PLACE OF WORK AMONG NURSES INCLUDED IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968, THROUGH MARCH,1969*

Distance in Miles**	Registered Nurses Active Percent	Licensed Practical Nurses Active Percent
0-1	13.3	14.9
2	10.8	11.6
3	12.0	12.5
4	6.1	5.6
5	13.0	12.5
6	4.7	6.6
7	4.8	3.6
8	3.7	3.6
9	0.9	0.7
10	10.5	7.3
11	2.1	2.0
12	8.5	1.7
13	0.9	1.0
14	1.5	1.0
15	3.6	4.0
16	0.3	0.3
17	0.3	1.0
18	1.2	1.3
19	0.1	-0-
20	2.8	2.0
21	0.1	1.0
22	0.7	0.3
23	-0-	1.3
24	-0-	0.3
25	0.8	1.3
26-30	0.6	2.2
31-35	0.3	-0-
36-40	0.7	-0-
41-50	0.1	-0-
51 and over	0.5	0.3

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1055 total responses.

Registered Nurses, and 7.2 percent of practicing Licensed Practical Nurses worked outside their county of residence, as shown in Table 39.

Table 40 shows four types of data concerning the remuneration for nursing services in Florida among the survey sample of practicing nurses. Practicing nurses earned substantial portions of family income; 30.9 percent of practicing Licensed Practical Nurses earned 76 to 100 percent of total family income, while 28.8 percent of practicing Registered Nurses did the same; 16.4 and 16.0 percent respectively earned from 51 to 75 percent of total family income. The majority of nurse families consisted of four or fewer members, counting the nurse. Monthly income varied from nominal pay for part-time work to a few nurses who received substantial rates of pay. However, 74.5 percent of all practicing Registered Nurses who reported made $600.00 or less per month gross pay, and 74.1 percent of reporting Licensed Practical Nurses made $400.00 or less per month gross pay (in 1968 dollars). Over half of the Licensed Practical Nurses (53.1 percent) and less than half (46.1 percent) of the Registered Nurses did not consider that their rate of pay was fair compensation for the services they rendered.

Table 41 shows the total years of employment of nurses in the sample survey, the number of career interruptions, the reasons for career interruptions, years in present employment and years in previous employment. Few

TABLE 39

PERCENT NURSES WHO WORK IN COUNTY OF RESIDENCE AMONG NURSES IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968,THROUGH MARCH,1969*

Place of employment**	Registered Nurses Active Percent	Licensed Practical Nurses Active Percent
In County of Residence	91.5	92.81
Not in County of Residence	8.5	7.2

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1278 total responses.

TABLE 40

INCOME DATA OF EMPLOYED NURSES INCLUDED IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968, THROUGH MARCH,1969*

Data	Registered Nurses Percent	Licensed Practical Nurses Percent
Proportion of Family Income Earned by the Nurse**		
0-25%	19.0	19.8
26-50%	36.2	33.0
51-75%	16.0	16.4
76-100%	28.8	30.9
Members in Family, Including Nurse ***		
1	24.4	27.2
2	24.2	28.7
3	18.2	16.9
4	18.8	13.8
5	8.1	9.6
6	3.2	3.1
7	1.6	0.8
8	1.0	-0-
9 or more	0.5	-0-
Monthly income for Nurse****		
$300 or under	13.1	22.2
$300-350	4.5	18.0
$351-400	5.4	33.9
$401-450	5.8	14.4
$451-500	14.6	6.6
$501-550	15.8	2.1
$551-600	15.3	1.2
$601-650	11.0	1.2
$651-700	6.1	.3
Over $701	8.2	-0-
"Is this fair compensation?"*****		
Yes	53.9	46.9
No	46.1	53.1

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1125 total responses.

***877 responses.

****1150 responses.

*****1212 responses.

TABLE 41

CAREER INFORMATION OF EMPLOYED NURSES INCLUDED IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER, 1968, THROUGH MARCH, 1969*

Data	Registered Nurses Percent	Licensed Practical Nurses Percent
Years Employed as a Nurse**		
0-5	17.2	29.7
6-10	17.0	28.5
11-15	15.3	16.2
16-20	15.9	13.8
21-25	10.2	4.0
26-30	7.5	4.1
31-35	7.6	1.1
36-40	3.2	1.6
41-45	1.4	0.9
46-50	0.1	-0-
50-55	0.2	-0-
56 and over	-0-	-0-
Number of Interruptions in Career***		
0	54.6	75.0
1	25.3	15.8
2	10.3	5.8
3	5.9	1.9
4	2.1	0.9
5	0.7	0.4
6	0.6	0.2
7	0.2	-0-
8	0.2	-0-
9 or more	0.2	
Reasons for Interruptions in Career***		
Family Responsibilities	78.8	52.9
Personal Health Reasons	5.8	21.0
Retirement	0.5	-0-
Difficulty in Finding Employment	0.3	-0-
Other, More Desirable Employment	1.2	3.6
Low pay	0.3	-0-
Low status, or lack of interest	0.2	-0-
Need for More Training or education	3.1	4.3
Other	9.6	18.1

TABLE 41-Continued

Data	Registered Nurses Percent	Licensed Practical Nurses Percent
Years in Present Employ*****		
Range	1 to 50 years	1 to 36 years
Mean	5.3 years	3.3 years
Years in Previous Employ******		
Range	1 to 43 years	1 to 30 years
Mean	5.2 years	4.5 years

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1255 total responses.

*** 1761 responses.

**** 710 responses.

***** 1088 responses.

****** 951 responses.

of Florida's nurses have been in practice for over 25 years. Most have had relatively few interruptions in their professional careers. Most careers were interrupted because of family responsibilities and personal health reasons. It is interesting, however, that moderate percentages of nurses interrupted their careers because of need for education and training, and because of more desirable employment opportunities that were available. Registered Nurses listed their time spent in current employment situations at an average of 5.3 years, and 5.2 years in their previous employment; Licensed Practical Nurses listed an average of 3.3 years in current employment, and 4.5 in the previous employment situation.

Only 1.5 percent of practicing Registered Nurses and 1.9 percent of Licensed Practical Nurses reported to have been in civilian United States government employ; 2.1 percent of the Registered Nurses reported to be under active military commission (1.3 percent of the Licensed Practical Nurses reported to be commissioned, though this is an apparent error since Licensed Practical Nurses are not eligible for commission), (Table 42).

Educational Attainment

The quality of nursing service is a composite of a diverse complex of variables. Many of these variables depend upon the individual and the particular employment situation of the individual nurse. There is, however, a

TABLE 42

FEDERAL EMPLOYMENT AMONG FULL-TIME NURSES IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968, THROUGH MARCH,1969*

Nature of Employment**	Registered Nurses Percent	Licensed Practical Nurses Percent
Non-Federal Employ	96.4	96.8
Federal Employ Civilian	1.5	1.9
Federal Employ Commissioned Military	2.1	1.3

*Source: Florida Nurse Study data (25).
**Percentages represent distribution among 1127 total responses.

major variable which is basic to all others, the educational foundation of the nurse for practice. This foundation is begun with formal general education and is continued in the specific program of pre-service nursing education which the applicant undergoes prior to initial licensure. The process continues through both formal structured training and also through informal in-service experiences. The skills, knowledge, and understandings that the individual possesses are a complicated structure which must be maintained and renewed if optimum ability and effectiveness are to be achieved. The aggregate educational background of any group of professionals may be used as an indicator of the potential of that group. This section deals with the educational background of the nurses in the survey sample and an estimation of the formal educational experience of the total population of nurses of Florida.

Level of General Education

As stated elsewhere in this discussion, the quantity and quality of general education received by nurses is a vital component of quality nursing practice. This is not, however, to imply that simply because one nurse has more formal general education in school or college, that that person is necessarily superior to a peer who has had less formal educational experience. The essentiality of sound general education as a liberalizing element for bettering the lives of people is taken as a basic principle. In addition, such general education is believed to have a positive rather than a negative (or even neutral) effect upon the performance of both the student and the practicing nurse (8). Such a belief presupposes the necessity for building general qualitative and quantitative communications skills, and in addition as broad as possible exploration of physical sciences, social sciences, and humanities. This section enumerates estimated levels of education of Florida's nurses at the economic and growth area and State levels.

Table 43 is a distribution of the reported levels of formal education indicated by participants in the Florida Nurse Study sample survey, among active and inactive Registered Nurses. Table 44 is a distribution of the sample responses for active and inactive Licensed Practical Nurses. Over half (55.0 percent) of active Registered Nurses were high school graduates only; 13.6 percent had one year of college; 9.4 percent had two years of college and/or an associate degree; 5.6 percent had completed three years of college; 8.6 percent had received a baccalaureate degree; 2.7 percent had received a master's degree; and 0.1 had received a doctor's degree. Among the active Licensed Practical Nurses in the sample reporting 64.5 percent had received a high school diploma, but 4.0 percent had less than ten grades of secondary and elementary education, 9.9 percent had completed the tenth grade, and 7.4 percent had completed the eleventh grade; 8.3 percent had completed one year of college; 3.8 percent had two years of college and/or had received an associate degree; 1.3 percent had completed

TABLE 43

HIGHEST LEVEL OF FORMAL EDUCATION ATTAINED BY REGISTERED NURSES IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER, 1968, THROUGH MARCH, 1969*

Highest Level*	Type of Current Licensure Active Percent	 Inactive Percent
Less than Tenth Grade	0.4	0.9
Tenth Grade	0.6	1.7
Eleventh Grade	0.8	1.7
High School Graduate	55.0	66.4
One year of College	13.6	7.8
Associate Degree	9.4	10.3
Three Years of College	5.6	1.7
Baccalaureate degree	8.6	6.9
Graduate Credit	3.1	0.9
Master's Degree	2.7	1.7
Doctor's Degree	0.1	-0-

*Source: Florida Nurse study data (25).
**Percentages represent distribution among 1323 total responses.

TABLE 44

HIGHEST LEVEL OF FORMAL EDUCATION ATTAINED BY LICENSED PRACTICAL NURSES IN THE FLORIDA NURSE STUDY SAMPLE, OCTOBER, 1968, THROUGH MARCH, 1969*

Highest Level	Type of Current Licensure	
	Active Percent	Inactive Percent
Less than tenth grade	4.0	2.7
Tenth grade	9.9	16.2
Eleventh grade	7.4	10.8
High school graduate	64.5	62.2
One year of college	8.3	2.7
Associate degree	3.8	5.4
Three years of college	1.3	-0-
Baccalaureate degree	0.4	-0-
Graduate credit	0.4	-0-
Master's degree	-0-	-0-
Doctor's degree	-0-	-0-

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 564 total responses.

three years of college; 0.4 had received a baccalaureate degree, and 0.4 percent reported some graduate credit.

Table 45 is an analysis of the Florida Nurse Study sample survey responses concerning the level of highest formal education of active nurses in the State who were employed as nurses by economic trading area. Table 46 is an analysis of the sample responses concerning educational levels of Florida's practicing nurses by comparative growth area. These two distributions suggest differences among the various areas of the State. It can be assumed that the differences indicated do reflect actual differences among the educational level patterns of the areas thus divided, but caution is extended concerning speculation relative to education levels for sub-categories since the sample size for many sub-categories was small. Tables 45 and 46 do tend to show differences in aggregate levels of formal education which could effect the potential quality of practice. Please refer to Chapter II for a discussion of the two types of analysis by area.

Pre-service Education

No less essential to quality nursing service than general education is the specific educational program of pre-service instruction and training which the nurse undergoes prior to licensure. Some discussion is made elsewhere (Chapter IV) concerning types of educational programs. The purpose of this section is to enumerate the background of formal pre-service education had by nurses now in the State.

TABLE 45

DISTRIBUTION BY PERCENTAGES OF FORMAL EDUCATION LEVEL AMONG ACTIVE NURSES IN THE FLORIDA NURSE STUDY SURVEY SAMPLE BY ECONOMIC TRADING AREA, OCTOBER, 1968, THROUGH MARCH, 1969*

Level of Education**	Area					
	A	B	C	D	E	F
Registered Nurses						
Less than tenth grade	-0-	2.6	-0-	0.9	0.2	-0-
Tenth grade	0.7	-0-	1.1	0.6	0.4	-0-
Eleventh grade	0.7	-0-	0.5	0.6	1.3	-0-
High school	50.7	46.2	53.6	60.0	53.2	63.3
One year of college	14.6	12.8	16.9	11.8	14.1	6.1
Two years of college	8.3	7.7	10.4	9.1	9.5	12.2
Three years of college	9.0	5.1	7.7	4.5	4.1	10.2
Baccalaureate degree	7.6	17.9	7.1	6.1	11.0	4.1
Graduate credit	4.9	2.6	1.6	3.3	3.2	2.0
Master's degree	3.5	5.1	1.1	2.7	2.8	2.0
Doctor's degree	-0-	-0-	-0-	0.3	-0-	-0-
Licensed Practical Nurses						
Less than tenth grade	2.9	3.6	8.7	4.7	2.1	3.2
Tenth grade	-0-	10.7	14.5	12.2	7.8	9.7
Eleventh grade	2.9	7.1	4.3	8.7	9.3	-0-
High school degree	76.5	53.6	60.9	62.2	64.2	83.9
One year of college	14.7	17.9	5.8	6.4	9.8	-0-
Two years of college	2.9	3.6	4.3	1.7	5.7	3.2
Three years of college	-0-	3.6	-0-	2.3	1.0	-0-
Baccalaureate degree	-0-	-0-	1.4	0.6	-0-	-0-
Graduate credit	-0-	-0-	-0-	1.2	-0-	-0-
Master's degree	-0-	-0-	-0-	-0-	-0-	-0-
Doctor's degree	-0-	-0-	-0-	-0-	-0-	-0-

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1734 total responses.

TABLE 46

DISTRIBUTION BY PERCENTAGES OF FORMAL EDUCATION LEVEL AMONG ACTIVE NURSES IN THE FLORIDA NURSE STUDY SURVEY SAMPLE BY COMPARATIVE GROWTH AREA, OCTOBER,1968, THROUGH MARCH,1969*

Level of Education**	Area A	B	C	D	E	F
Registered Nurses						
Less than tenth grade	0.2	0.7	0.6	-0-	-0-	1.3
Tenth grade	0.6	0.7	0.6	-0-	-0-	-0-
Eleventh grade	1.1	0.7	0.6	-0-	-0-	-0-
High school dgree	53.1	59.1	54.1	85.7	53.6	55.3
One year of college	14.9	12.2	13.8	-0-	14.3	7.9
Two years of college	9.7	9.1	8.8	-0-	7.1	11.8
Three years of college	5.2	4.2	8.3	14.3	3.6	7.9
Baccalaureate degree	10.1	6.3	6.6	-0-	14.3	9.2
Graduate credit	2.7	3.8	3.3	-0-	7.1	2.6
Master's degree	2.4	2.8	3.3	-0-	-0-	3.9
Doctor's degree	-0-	0.3	-0-	-0-	-0-	-0-
Licensed Practical Nurses						
Less than tenth grade	3.9	5.5	1.8	-0-	6.7	2.0
Tenth grade	9.7	13.0	1.8	25.0	6.7	10.0
Eleventh grade	8.2	9.6	1.8	-0-	20.0	-0-
High school degree	63.0	58.9	78.2	75.0	53.3	76.0
One year of college	8.6	6.8	12.7	-0-	6.7	8.0
Two years of college	5.4	1.4	3.6	-0-	6.7	2.0
Three years of college	0.8	2.7	-0-	-0-	-0-	2.0
Baccalaureate degree	0.4	0.7	-0-	-0-	-0-	-0-
Graduate credit	-0-	1.4	-0-	-0-	-0-	-0-
Master's degree	-0-	-0-	-0-	-0-	-0-	-0-
Doctor's degree	-0-	-0-	-0-	-0-	-0-	-0-

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1734 total responses.

This is a quantitative examination only, not a qualitative analysis. Consequently no implication is made concerning the quality of one type of program compared to others; this is because there is a potential for manifest differences to occur not so much between types of programs, but rather as variances among programs of a type, from institution to institution, and from state to state. Data are presented here for sample breakdowns and for estimated total population distribution. Notation is made of the state of initial pre-service education of nurses now licensed in and by Florida.

The types of pre-service or basic nurse education listed by respondents in the Florida Nurse Study sample survey are listed in Table 47. Diploma or hospital three-year programs accounted for 85.6 percent of active Registered Nurses and for 87.9 percent of inactive Registered Nurses. Associate degree junior college programs were the basic pre-service educational experience for 5.2 percent of the active, and 5.2 percent of the inactive Registered Nurses in the sample. Baccalaureate programs accounted for 8.6 percent of the active and 5.2 percent of the inactive Registered Nurses. Vocational or technical school programs provided the basic pre-service nursing education for 63.6 percent of the active, and 60.6 percent of the inactive Licensed Practical Nurses in Florida. Hospital practical nurse programs accounted for 29.9 percent of the active, and 36.4 percent of the inactive Licensed Practical Nurses.

TABLE 47

PRE-SERVICE NURSING EDUCATION COMPLETED FOR LICENSURE BY NURSES IN THE FLORIDA NURSE STUDY SAMPLE, OCTOBER,1968,THROUGH MARCH, 1969*

Type of Program**	Registered Nurses Active	Registered Nurses Inactive	Licensed Practical Nurses Active	Licensed Practical Nurses Inactive
Professional Nursing:				
Diploma Program	85.6	87.9	4.1***	3.0***
Associate Degrees	5.2	5.2	-0-	-0-
Baccalaureates	8.6	5.2	-0-	-0-
Practical Nursing:				
Vocational Schools	0.2***	-0-	63.6	60.6
Hospital Programs	0.3***	1.7***	29.9	36.4
Junior Colleges	0.1***	-0-	2.5	-0-

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1861 total responses.

***Thirty Responses fell into illogical categories.

Only 2.5 percent of active, and no inactive Licensed Practical Nurses received their pre-service, pre-licensure education in junior college practical nurse programs.

Table 48 is an approximation of the number of nurses in the State who received their initial pre-service nursing education in the types of pre-service programs as listed and proportionate to the percentages listed in Table 47.

Place of Pre-service Nursing Education

Table 49 indicates the percentages among the survey sample for the state of basic or initial pre-service nursing education. This enumeration is similar, but not necessarily the same as the enumeration of percentages by state of percentages by state of initial licensure found in Chapter II. In Table 49, it is shown that only 26.8 percent of Florida's resident active Registered Nurses and only 68.2 percent of the State's Licensed Practical Nurses had received their nursing education in Florida. The difference between the percentage of active Registered Nurses and active Licensed Practical Nurses (31.4 percent) seems to indicate that Registered Nurses were the more mobile of the two types, or that Licensed Practical Nurses were apt to be indigenous and more placebound. A number of states tended to supply important portion of either or both Registered and Licensed Practical Nurses: Alabama, Connecticut, Georgia, Illinois, Indiana, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Tennessee, and West Virginia.

TABLE 48

ESTIMATED PRE-SERVICE NURSING EDUCATION OF NURSES IN FLORIDA PROPORTIONATE TO FLORIDA NURSE STUDY SAMPLE FINDINGS, OCTOBER, 1968, THROUGH MARCH, 1969*

Type of Program	Registered Nurses		Licensed Practical Nurses	
	Active Number	Inactive Number	Active Number	Inactive Number
Professional Nursing:				
Diploma Program	22,723	3,351		
Associate Degree	1,380	198		
Baccalaureate	2,283	203		
Unknown	158	65		
Practical Nursing:				
Vocational School			7,287	737
Hospital Program			3,426	442
Junior College			286	-0-
Unknown			470	360

*Source:
Calculated from Florida Nurse Study data (25).

TABLE 49

STATE OF INITIAL PRE-SERVICE NURSING EDUCATION AMONG NURSES IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER, 1968, THROUGH MARCH, 1969*

	Registered Nurses		Licensed Practical Nurses	
State	Active	Inactive	Active	Inactive
Alabama	2.1	2.7	0.4	-0-
Alaska	-0-	-0-	-0-	-0-
Arizona	-0-	-0-	-0-	-0-
Arkansas	0.2	-0-	0.2	-0-
California	0.2	0.9	-0-	-0-
Colorado	0.2	-0-	-0-	-0-
Connecticut	1.5	0.9	0.6	3.0
Delaware	0.3	-0-	-0-	-0-
District of Columbia	0.8	0.9	0.2	-0-
FLORIDA	26.8	37.3	68.2	72.7
Georgia	5.2	1.8	2.2	-0-
Guam	-0-	-0-	-0-	-0-
Hawaii	-0-	-0-	-0-	-0-
Idaho	-0-	-0-	-0-	-0-
Illinois	4.1	3.6	1.2	-0-
Indiana	1.9	-0-	1.0	-0-
Iowa	0.5	-0-	0.4	-0-
Kansas	0.1	1.8	-0-	-0-
Kentucky	0.9	-0-	0.4	-0-
Louisiana	1.4	1.8	0.4	3.0
Maine	0.7	0.9	0.2	-0-
Maryland	1.7	1.8	0.6	-0-
Massachusetts	3.9	4.5	1.8	6.1
Michigan	2.6	3.6	2.0	-0-
Minnesota	0.8	2.7	0.4	-0-
Mississippi	0.5	0.9	0.2	-0-
Missouri	1.5	2.7	0.6	-0-
Montana	-0-	-0-	-0-	-0-
Nebraska	0.3	-0-	-0-	-0-
Nevada	-0-	-0-	-0-	-0-
New Hampshire	0.3	-0-	0.8	-0-
New Jersey	4.3	3.6	1.4	-0-
New Mexico	-0-	-0-	-0-	-0-
New York	9.7	9.1	4.9	3.0
North Carolina	1.7	3.6	0.6	3.0
North Dakota	0.1	-0-	-0-	-0-
Ohio	5.2	5.5	1.8	-0-
Oklahoma	0.1	-0-	0.2	-0-
Oregon	0.1	-0-	-0-	-0-
Pennsylvania	7.4	4.5	3.5	6.1
Puerto Rico	-0-	-0-	-0-	-0-
Rhode Island	0.3	0.9	0.2	-0-
South Carolina	0.9	-0-	0.2	-0-
South Dakota	0.3	-0-	-0-	-0-

TABLE 49 -- Continued

State	Registered Nurses		Licensed Practical Nurses	
	Active	Inactive	Active	Inactive
Tennessee	2.4	-0-	1.2	-0-
Texas	1.1	-0-	1.0	-0-
Utah	0.1	-0-	-0-	-0-
Vermont	0.1	0.9	-0-	-0-
Virgin Islands	-0-	-0-	-0-	-0-
Virginia	1.5	-0-	0.4	3.0
Washington	1.5	-0-	0.4	3.0
West Virginia	1.6	1.8	1.2	-0-
Wisconsin	0.6	-0-	-0-	-0-
Wyoming	-0-	-0-	-0-	-0-
U.S. territories and foreign countries	3.9	0.9	1.2	-0-

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1816 total responses.

United States territories, and foreign countries accounted for 3.9 percent of the education of the active Registered Nurses in the sample, and for 1.2 percent of the active Licensed Practical Nurses.

Additional Training

The importance of keeping pace with new developments in a given profession is great. New developments in theory and technique as well as reinforcement of traditional and proven skills and understandings are extremely important for the practicing nurse. This section is concerned with the incidence of additional training and education programs among nurses sampled.

Table 50 lists the percentages of frequency of responses to the number of additional instances of programs of education and training experienced by the nurses in the sample. This included any type of additional training and education such as refresher courses, in-service training specialization programs, workshops, and college credit courses related to nursing. A large percentage of Registered Nurses, active 69.0 percent, and of Licensed Practical Nurses, active 70.3 percent, either did not respond to the question or indicated no additional training. Only 24.9 percent of active Registered Nurses, and 21.9 percent of active Licensed Practical Nurses listed one additional program of training. Two programs were indicated by 5.61 percent of active Registered Nurses, and 0.4 percent of active Licensed Practical Nurses. Three was the highest

TABLE 50

FREQUENCY OF INSTANCES OF ADDITIONAL TRAINING AND EDUCATION AMONG NURSES IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968, THROUGH MARCH,1969*

Frequency**	Registered Nurses Active Percent	Registered Nurses Inactive Percent	Licensed Practical Nurses Active Percent	Licensed Practical Nurses Inactive Percent
D, or Unknown	69.0	79.5	70.30	71.0
1	24.9	14.0	21.9	23.7
2	5.61	0.6	0.4	-0-
3	1.5	-0-	0.3	5.3
4	0.5	-0-	-0-	-0-
5	0.3	-0-	-0-	-0-
6	0.1	0.1	-0-	-0-
7	0.3	-0-	-0-	-0-
9 or more	0.1	-0-	-0-	-0-

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1921 total responses.

frequency of programs reported by active Licensed Practical Nurses and this was only 0.3 percent. Few (2.8 percent) of active Registered Nurses reported more than two instances of added training or education.

Demographic Characteristics

This final section of our description of Florida's nurses is concerned with four basic demographic factors: sex, race, age, and marital status. These data tend to round out the profile of the Florida nurse. Certain implications of these data are considered here.

Table 51 shows the division by sex among the sampling. The percentages of males reporting was very small; 1.0 percent of active Registered Nurses and 0.8 percent of active Licensed Practical Nurses reported to be male. No inactive nurses reported themselves to be male. It would be very safe to estimate that very few of Florida's nurses are males. Two factors probably significantly account for this: first, the nursing profession has been predominantly female in orientation; and although males have not been systematically excluded, their entrance into the profession has probably been limited by the force of societal norms; secondly, the rate of pay for nursing services has traditionally been low enough to exclude most males who would support a family.

Table 52 shows the racial distribution of the nurses of the sample. Of the nurses who reported their racial grouping, only 2.5 percent of the active, and 5.1 percent of

TABLE 51

DIVISION OF SEX AMONG NURSES INCLUDED IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER, 1968, THROUGH MARCH, 1969*

Sex**	Registered Nurses		Licensed Practical Nurses	
	Active Percent	Inactive Percent	Active Percent	Inactive Percent
Female	99.0	100.0	99.2	100.0
Male	1.0	-0-	0.8	-0-

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1901 total responses.

TABLE 52

DIVISION OF RACE AMONG NURSES INCLUDED IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER,1968, THROUGH MARCH,1969*

Racial Group	Registered Nurses		Licensed Practical Nurses	
	Active Percent	Inactive Percent	Active Percent	Inactive Percent
Caucasoid	97.4	94.9	88.3	100.0
Negroid	2.5	5.1	11.7	-0-
Other	0.1	-0-	-0-	-0-

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1894 total responses.

the inactive Registered Nurses reported themselves to be of the Negroid racial grouping; all others (with the exception of 0.1 percent of active Registered Nurses) reported themselves to be Caucasoid. Among the Licensed Practical Nurses, 11.7 percent of the active licensure sub-category reported themselves to be Negroid, all others were reported to be Caucasoid. The active Licensed Practical Nurse proportions seem to approximate the national racial mix (47, p. 19). The proportion of reported Negroid compared to Caucasoid Registered Nurses is not proportionately comparative to national ratios.

Table 53 is an analysis of the age ranges of all active and inactive Registered and Licensed Practical Nurses and the age ranges (in parentheses) of active and employed in practice Registered and Licensed Practical Nurses in the Florida Nurse Study survey sample. For active Registered Nurses, most individuals tend to enter the profession before they are 30 years old, their numbers show a regular decline following the 26 to 30 age grouping. The apparent difference between the 21 to 25 age grouping (6.0 percent for active Registered Nurses), and the 26-30 age grouping (12.6 percent for the same category) seems to indicate that considerable numbers of young adults in addition to so-called college age persons qualify for and enter the profession. A comparison with active Registered Nurses in practice with total active Registered Nurse license holders shows an indication that proportionately

TABLE 53

AGE RANGES OF NURSES INCLUDED IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER, 1968, THROUGH MARCH, 1969*

	Registered Nurses			Licensed Practical Nurses		
Age Range **	Active Percent	***	Inactive Percent	Active Percent	***	Inactive Percent
20 and under	-0-	(-0-)	-0-	0.2	(-0-)	-0-
21 - 25	6.0	(8.0)	1.6	5.6	(6.1)	-0-
26 - 30	12.6	(10.1)	10.9	9.9	(8.5)	27.7
31 - 35	11.9	(9.7)	15.1	6.5	(6.3)	16.8
36 - 40	11.6	(11.1)	5.9	8.1	(11.0)	5.6
41 - 45	12.0	(11.9)	8.4	15.6	(17.7)	2.8
46 - 50	11.9	(14.0)	6.7	13.3	(13.2)	8.4
51 - 55	10.4	(12.9)	8.3	13.3	(16.4)	8.4
56 - 60	11.4	(12.2)	9.2	9.7	(10.2)	8.3
61 - 65	7.6	(7.0)	8.5	9.0	(6.2)	2.8
66 - 70	3.6	(1.1)	8.4	6.2	(2.6)	2.8
71 - 75	1.3	(1.0)	13.4	2.4	(0.6)	14.0
76 - 80	0.3	(-0-)	3.4	0.4	(-0-)	2.8
81 and over	0.1	(-0-)	0.8	0.2	(0.3)	-0-

*Source: Florida Nurse Study data (25).

**Percentages represent distribution among 1895 total responses.

***Percentages in parentheses represent the age distribution among full-time employed nurses under active licensure. Percentages represent distribution among 845 total responses.

large numbers of nurses do not in fact practice nursing in the age range from 25 to 36 years. A few nurses only practice beyond 65 years of age. Active Licensed Practical Nurses present a different total age range pattern than do active Registered Nurses, for the largest age groupings tend to fall in a range from 41 years to 51 years of age rather than the more regular diminishing pattern with increasing age of active Registered Nurses. This phenomenon probably had much to do with the wartime (World War II and Korea) acceleration of production of Licensed Practical Nurse personnel. It is also interesting that this age range (41 to 51 years) also contains the highest percentages of practicing active Licensed Practical Nurses in the State. It may be that the patterns of practice for Licensed Practical Nurses relative to age grouping is also tied to the entrance of more mature persons into training programs and then into active practice.

Table 54 is a distribution of respondents according to the marital status which they reported in the survey.

Educational Opportunities Desired

Many of the nurses sampled in the questionnaire survey expressed a desire for additional education. Table 55 shows the percentages of frequency of response to questionnaire item which requested them to show the types of nursing education opportunities they desired. Most nurses in the sample indicated that, given the opportunity, they would probably seek some type of further education.

TABLE 54

MARITAL STATUS OF NURSES INCLUDED IN THE FLORIDA NURSE STUDY SURVEY SAMPLE, OCTOBER, 1968, THROUGH MARCH, 1969*

Status**	Registered Nurses		Licensed Practical Nurses	
	Active Percent	Inactive Percent	Active Percent	Inactive Percent
Married	71.2	80.2	63.2	80.6
Single	11.1	6.9	6.8	-0-
Divorced	0.7	-0-	1.7	-0-
Widowed	8.9	0.9	12.8	2.8
Separated	8.1	12.1	15.5	16.7

*Source: Florida Nurse Study data (25).
**Percentages represent distribution among 1887 total responses.

TABLE 55

ADDITIONAL EDUCATIONAL OPPORTUNITIES DESIRED AMONG NURSES IN THE FLORIDA NURSE STUDY SAMPLE SURVEY, OCTOBER,1968, THROUGH MARCH,1969*

Items per Respondent **	Registered Nurses				Licensed Practical Nurses			
	Active		Inactive		Active		Inactive	
	no.	%	no.	%	no.	%	no.	%
0	108	(8.80)	48	(39.66)	78	(14.77)	10	(26.31
1	1,118	(91.19)	79	(60.33)	450	(85.22)	28	(73.68
2	527	(42.98)	19	(15.70)	188	(35.60)	14	(36.84)
3	313	(25.53)	7	(5.78)	107	(20.26)	3	(7.89)
4	169	(13.78)	4	(3.30)	55	(10.41)	2	(5.26)
5 or more	86	(7.01)	1	(0.82)	30	(5.68)	1	(2.63)

*Source: Florida Nurse Study data (25).

**Percentages and frequencies represent distribution among the total sample; 1,921 total responses.

Table 56 shows the kinds of educational opportunities the nurses in the sample desired. Workshops, refresher courses, conferences, and other types of in-service education were highly desired. With a few exceptions, the degree and other credit type of programs were indicated to be at a lower level of aspiration. It must be noted that there was much interest indicated among Licensed Practical Nurses for both high school completion and entry into associate degree (Registered Nurse) programs.

Summary

The purpose of this chapter was to continue with the generation of the profile of Florida's nurses begun in Chapter II. Characteristics of employment, unemployment, education, and certain demographic factors were considered.

Findings

The following generalizations are presented which were drawn from the data presented in the chapter.

1. Based upon the Florida Nurse Study questionnaire survey sample findings, it was estimated that slightly better than half of the active Registered Nurses and the active Licensed Practical Nurses of Florida were employed on a full-time basis. About 10 percent of the State's active nurses were estimated to have been employed on a part-time basis; and about 5 percent were irregularly employed as nurses. Three to 4 percent of the active nurses were estimated to have been employed in health fields other than nursing. Two or 3 percent of the

TABLE 56

KINDS OF ADDITIONAL EDUCATION OPPORTUNITIES DESIRED AMONG NURSES IN THE FLORIDA NURSE STUDY SAMPLE SURVEY, OCTOBER,1968,THROUGH MARCH,1969*

Kinds of Programs Desired	Registered Nurses				Licensed Practical Nurses					
	Active frequency	rank	Inactive frequency	rank	Active frequency	rank	Inactive frequency	rank	Total	Rank
High School Completion	2	(16)	-0-	(-)	39	(8)	7	(2)	48	(11)
Associate Degree, in nursing	33	(12)	-0-	(-)	84	(3)	4	(5)	121	(8)
Associate Degree, not in nursing	34	(11)	1	(9)	10	(12)	1	(9)	46	(12)
Baccalaureate Degree, in nursing	131	(7)	7	(4)	11	(11)	-0-	(-)	149	(7)
Baccalaureate Degree, not in nursing	27	(14)	-0-	(-)	3	(13)	-0-	(-)	30	(15)
Master's Degree, in Education	56	(9)	1	(9)	1	(14)	-0-	(-)	39	(13)
Master's Degree, in Another Field	39	(10)	-0-	(-)	-0-	(-)	-0-	(-)	39	(13)
Doctor's Degree, in Any field	18	(15)	-0-	(-)	-0-	(-)	-0-	(-)	18	(16)
Workshops	384	(1)	9	(3)	111	(2)	3	(6)	507	(1)
Conferences	317	(2)	5	(5)	70	(5)	3	(6)	395	(3)
Visitations to Health Centers and agencies	138	(6)	2	(8)	65	(6)	2	(8)	207	(5)
Visitations to Educational centers and agencies	139	(5)	3	(7)	61	(7)	2	(8)	205	(6)
Planned Refresher courses	271	(4)	33	(1)	182	(1)	5	(4)	491	(2)
Non-credit courses	86	(8)	4	(6)	15	(10)	14	(1)	119	(9)
College Credit Courses	272	(3)	11	(2)	72	(4)	6	(3)	361	(4)
Other	32	(13)	-0-	(-)	18	(9)	1	(9)	51	(10)

*Source: Florida Nurse Study data (25).

active nurses were employed in other, non-health-related, employment. It was again shown that the numbers of active full-time nurses as compared to general population units were disproportionate among the counties and regions of the State. Much disproportion of full-time nursing service was noted among large municipal areas.

2. Unemployment among licensed nurses was mainly due to the pressures of family responsibilities, health reasons, retirement, and low rates of remuneration. Many nurses indicated in returned questionnaires that they could not afford to practice nursing; they could neither afford the time away from their families, nor could they afford to purchase necessary services (housekeeping, child care, transportation) under present rates of pay.

3. It was shown that Florida's nurses were mainly employed in hospitals (over 50 percent). Other fields of practice in which many of the State's nurses were employed were: nursing homes, physicians' offices, and in private duty situations. Percentages of nurses employed in different fields of practice differed among the different geographic areas. Study was also made of the particular nursing capacities among the nurses who responded to the questionnaire survey; the nurses were found to be employed in a wide variety of roles. Many nurses were found to be employed in situations which involved little or no patient contact and bedside nursing.

4. The typical (or modal) Florida nurse was estimated to work about forty hours per week; to work on a morning

shift; to reside within five miles of the place of employment; to be employed in the county of residence; to provide from 26 to 50 percent of total family income; to be a part of a one or two person family group; to receive approximately $600.00 per month if a Registered Nurse, or about $400.00 per month if a Licensed Practical Nurse; to have been a nurse for less than five years; to probably have not experienced an interruption in her nursing career, but if an interruption has been experienced that it was probably due to family reasons. Few of Florida's nurses were found to be in federal government employ.

5. It was found in the study that most of the State's nurses held high school diplomas. Some of these nurses indicated that they held college degrees also. Levels of formal education found among nurses grouped by geographic areas was found to vary among different areas of the State. It was found that most of the Registered Nurses had been educated in hospital diploma nursing schools. Most Licensed Practical Nurses were found to have been educated in vocational school programs. It was learned that about one-fourth of the active Registered Nurses, and about three-fourths of the active Licensed Practical Nurses had received their pre-service nursing education in Florida. All others were educated in other states, and later moved to the State. Many nurses were found to have participated in one or more additional formal

educational experiences after they had received licensure which were related to their professional work.

6. The modal Florida nurse was estimated to be: female; of Caucasoid racial grouping; about thirty-five years old if a Registered Nurse, or about forty-five years old if a Licensed Practical Nurse; and married.

7. Most of the nurses who responded to the questionnaire showed interest in additional educational opportunities and indicated that they would be interested in participating in one or more educational programs. Many nurses indicated that they were interested in formal credit and degree programs, but the perponderance of the nurses showed interest in refresher and other types of in-service educational experiences.

Conclusions

From the data presented in this chapter and in Chapter II, the following generalizations were made. The nurses of Florida constitute a diverse group in terms of employment characteristics, educational background, and personal attributes. Together they represent a broad and varied range of educational needs. Efforts should therefore be made to better meet these needs in order that the nursing services avilable in the State be improved. It was found that many nurses were not employed because of factors such as low pay, family responsibilities, and the need for additional education. Many reasons for unemployment among nurses were found to be of a correctable nature. All efforts should be made to develop strategies to aid in bringing more of the State's unemployed nurses back into practice. Efforts should also be made to make the practice of nursing as attractive as possible in order that potential nurses be attracted to the profession.

CHAPTER IV

NURSING EDUCATION OPPORTUNITIES IN FLORIDA

The purpose of this chapter is to examine the present opportunity for nurse education within Florida. The five principal types of nurse education programs are discussed: graduate nurse programs; baccalaureate, associate degree, and diploma programs for Registered Nurses; and programs for Licensed Practical Nurses. The general purpose and philosophy of each type is examined. Analysis is made of the geographic location of each of the five types of programs in the State. Trends in the numbers and enrollments of Florida programs of nurse education are discussed. Enumeration is made of the clinical resources associated with Florida nurse education programs. Program and faculties are discussed. A brief discussion on the trends in licensure of program graduates is made.

A comparative and in-depth study of Florida's nurse education programs would be a logical part of this study. Such a study however is beyond the scope of this particular investigation. It is of critical importance to determine the effectiveness of present programs as a means of improving them. Students, faculties, clinical and didactic facilities, curricula, levels of support, special programs, and other areas should be studied with the cooperation of the individual schools. Restriction was placed upon the discussion and presentation of much of the data below since no individual school data could be considered on a comparative basis. Some future investigation must open this potentially controversial area of study. The results of such study however should be ultimately beneficial to the schools and the profession.

Types of Programs

In general there are five kinds of nursing education available to the citizens of the State. These may be grouped into three categories with regard to intent: practical nurse licensure, professional nurse licensure, and post-graduate competency for professional nurses.

Pre-service Licensed Practical Nurse Programs

The historic continuing short supply of professional nurses required that other health workers fill the resultant gaps in services which called for some nursing skills. These gaps have been filled by several kinds of personnel, the most important of which have been the trained auxiliary, later to be known as the Licensed Practical Nurse. It was not until World War II that the value of the trained auxiliary was recognized. In Florida it was not until 1951, when the law changed the title of such auxiliary personnel from "Licensed Attendent" to "Licensed Practical Nurse," that programs of education for Licensed Practical Nurses began to develop in earnest. Tilley (77, p. 14) wrote that there were six initial programs begun during 1951. Prior to that time, most Licensed Attendants were prepared in commercial schools. Since commercial schools were not regulated by law, as were to be the schools of practical nursing, the instruction was brief, often by correspondence, and without clinical experience. Schools of Practical Nursing now must be accredited by the Florida State Board of Nursing in order that their graduates may take the licensure examinations necessary for practice.

The purpose of programs of Practical Nursing is to prepare nurses who are able to perform in an auxiliary role to professional nurses. As the law implies, the Licensed Practical Nurse is trained to practice, generally under professional nurse supervision, nursing techniques. A high level of professional judgment as is expected of Registered Nurses is neither expected of Practical Nurses nor is sanctioned in law. In practice however Practical Nurses often parallel, if not duplicate, the roles and responsibility of Registered Nurses. Frequently Practical Nurses become highly competent through experience in the areas of work ostensively for professional nurses only. Frequently Practical Nurses are forced to assume the responsibilities of professional nurses, due to gaps and shortages, even though they are not qualified. Such conditions make the training of Practical Nurses a subject which should be the object of such careful planning as to provide the best education possible. The de facto extended role of the Practical Nurse demands that general education and nursing skills training opportunities be available after as well as prior to licensure.

Most Practical Nursing education programs are of one year in duration. Major emphasis is placed on the learning and mastery of selected nursing skills. The depth of nursing and health theory explored is minor compared to professional schools. Little general education is required; emphasis is placed upon direct clinical experience in such programs. "The general purpose of the one year program is to prepare a patient-side nurse who can demonstrate skill in caring for patients with less complex needs and to assist the registered nurse in meeting the more complex needs of other patients" (28, pp. 8-9). Contained in the required curriculum are these topical areas: Vocational Adjustments for the Practical Nurse, Personal and Community Health, Family Living, Common Diseases and Disorders, Maternal and Child Care, Fundamentals of Nursing, Rehabilitation, Medical Nursing, Surgical Nursing, Obstetric Nursing, and Pediatric Nursing (23, pp. 8-9).

Pre-service Registered Nurse Programs

There are three basic kinds of pre-service programs for Registered Nurses. These are baccalaureate programs in four year colleges and universities, associate degree nurse programs in junior colleges, and diploma schools usually located in hospitals. Statistics reported by the

American Nurses Association (6, p. 107) show that of these three types of programs, for the past seven years there has been a high rate of development among the number of associate degree programs, a rather modest gain for baccalaureate programs, and a marked decline in the number of diploma programs. In 1967, there was a national total of 1,269 Registered Nurse programs. Of these, 221 were baccalaureate programs, a 5.2 percent gain over 1966; 281 were associate degree programs, an increase over the previous year of 28.9 percent; the remaining 767 were diploma school programs, a decline of -3.8 percent from 1966. A similar pattern in Florida will be discussed later.

Florida law regulates pre-service Registered Nurse Programs as are Licensed Practical Nurse Programs. All Registered Nurse schools must be accredited by the Florida State Board of Nursing before graduates of such programs are eligible to take licensure examinations. Florida standards are high and rigorously enforced. The objective of such programs is to provide nurses of professional character who are able to assume responsibility in an impressive variety of potential fields of practice. As program graduates they are expected to perform well on licensure examinations and to enter active practice in their profession. They are expected to possess in-depth knowledge and understanding of theory relative to health and medicine. They are expected also to be able to demonstrate proficiency in skills required of Practical Nurses and more. Further, they are expected to possess a higher background level of general education. The following is specifically required:

> Biological and physical sciences related to anatomy, physiology, chemistry, bacteriology and physics.
>
> Behavioral sciences, humanities and related social science areas.
>
> The major field of nursing with instruction relating to history and trends in nursing, nursing care fundamental to all patients, nursing care related to more specific areas of medical nursing, surgical nursing, maternity nursing, nursing of children and psychiatric nursing; concepts of preventive and rehabilitative measures and the contribution of community agencies and paramedical personnel to the health and welfare of society.
>
> The baccalaureate programs will further include public health nursing (28, p. 4).

There are many differences in the three types of programs, the most obvious of which are the three educational settings. Also characteristic are the lengths of time generally associated with each type of program: four years for the baccalaureate program, three years for the diploma program, and two years for the associate degree. Time in a program may vary, especially for associate degree programs in nursing which may be assumed to be of in excess of two years duration as a rule.

Diploma schools of Registered Nursing can be categorized as the oldest type of professional nursing education in this country. Diploma schools have traditionally been situated in hospitals, and students were generally absorbed into the staffs. The students in diploma programs have been used in some cases to augment the hospital staff to such a degree as to actually modify their status from students to quasi employees. The fallacy of such utilization is obvious: students in such situations tended to get rather narrow on-the-job experience rather than effective classroom instruction and directed clinical experience. However, the cost of such programs has resulted in the gradual phasing out of diploma programs by sponsoring hospitals. The program of diploma programs is characterized by emphasis on clinical experience in the sponsoring hospital. Classroom instruction in nursing theory and general education tends to receive less emphasis. It must be acknowledged that most of the professional nurses now in practice are diploma school graduates.

Baccalaureate programs are of such a nature as in some ways to be the reverse in emphasis of that of diploma programs. Baccalaureate programs are based upon a high concentration of general college level education with special emphasis on the physical and social sciences. Such programs tend to stress theory and creative thinking with less emphasis upon practical application of knowledge. The curriculum is inclined to be broadly defined.

Associate degree professional nurse programs are likely to place proportionately equal emphasis upon nursing theory, general education, and clinical experience. The somewhat more abbreviated time sequence has aroused some skepticism, but licensure examination test scores have been favorably comparable to baccalaureate and diploma graduate scores,and provide a powerful argument for associate degree nursing programs (33, p. 11).

All three types of pre-service Registered Nursing programs are established with one common goal, to provide candidates for licensure. Graduates of all three types of programs, upon licensure, enter the field of professional nursing as peers. The granting of licensure provides, at least in theory, equal opportunity to practice; but the differentials in the levels of formal education may foster inequality. The baccalaureate nurse can claim more years of formal collegiate education than both the associate degree holder and the diplomate. The holder of an associate degree is in a superior position to the diploma holder with only a high school education insofar as formal education is concerned. It may be argued that any particular level is superior to the rest by using a variety of rationale, yet the fact remains that the conventions of our society recognize two years of college superior to none, and four to be superior to two.

Another aspect to be considered is the sequencing of these three levels. A professional nurse who holds a diploma may receive little or no credit towards an associate degree, and even less toward a baccalaureate degree, for her three years spent in nursing school. An associate degree holder may have fewer, but real enough problems, in getting junior college credits accepted in a baccalaureate program.

A further complication is present among the three classes if the American Nurses Association proposal is implemented concerning professional and technical levels of nursing (4). For the present, such problems are more philosophical than real; however, this will become a more pressing problem in the future.

Graduate Programs in Nursing

The third primary division of nursing education is that of graduate studies. These programs are primarily for the production of educators, administrators and researchers for the field of nursing, and tend to be highly specialized. They may be directed toward a degree at the master's or doctor's level, or some intermediate degree such as the Specialist in Education (Ed.S.). Graduate nursing education programs are almost exclusively open only to graduates of baccalaureate nursing programs, or nurses holding baccalaureate (or higher) degrees in other related disciplines. Programs may have high concentrations of studies in disciplines outside the field of nursing such as public administration or education. Graduate programs in nursing education are essential to the successful staffing of preservice nurse education programs.

Locations of Programs

The Florida State Board of Nursing in its annual report to the Governor for the biennium ending June 30, 1968

(27, pp. 2-4) reported the following accredited schools of pre-service nursing education in the State:

Fifteen associate degree programs,
Five baccalaureate programs,
Four diploma programs, and
Twenty-five practical nursing programs.

In addition, there were two schools of associate degree nursing which were then in the planning stage and have now been approved and initiated. One associate degree program was noted to have closed June, 1968 (at Jacksonville University). It was also noted that there was interest in the development of a baccalaureate program in nursing at the University of South Florida (27, p. 3). Not cited in the report was the report was the program of graduate studies in nursing at the University of Florida, which is at this time the only such program in the State.

Table 57 shows the enrollments and graduates of these programs over the past two years. It is apparent from these data that Florida, at least for the present, is dependent upon all three types of nursing schools for graduates. Florida schools of nursing graduated 1,686 students from Professional Nursing programs, and 1,644 students from Practical Nursing Programs during the 1966-1968 biennium. It would be informative to study the disposition of these graduates in terms of employment status and location, but this is beyond the scope of this study.

TABLE 57

ENROLLMENT AND GRADUATES OF PRE-SERVICE NURSE EDUCATION PROGRAMS IN FLORIDA, 1966-1967, 1967-1968*

Type of Program	Enrollment		Graduates	
	Fall 1966	Fall 1967	1966-67	1967-68
Professional Nursing Programs				
Associate Degree	1244	1357	337	412
Baccalaureate	460	994	172	230
Diploma	789	780	220	315
	2493	3131	729	957
Practical Nursing Programs	846	1164	747	897

*Source: Florida State Board of Nursing. Report to the Governor (26,27).

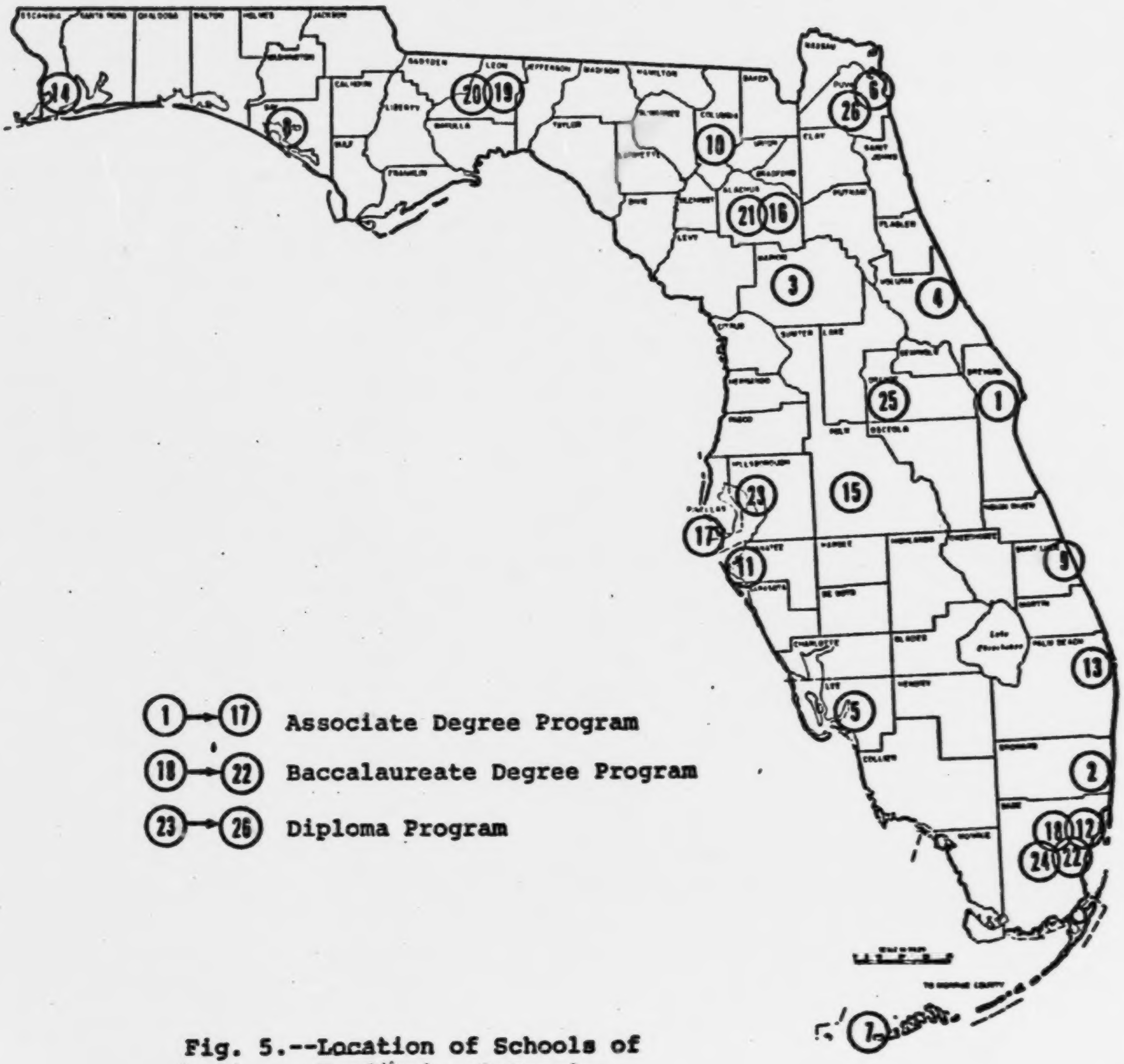
Figure 5 shows the locations of schools of Professional Nursing. Figure 6 shows the locations of Practical Nursing schools. The names and locations of Florida schools of nursing as of March, 1969, were as follows.

The Associate Degree Programs were:

1. Brevard Junior College, Division of Nursing, Cocoa
2. Broward Junior College, Nursing Education Program, Fort Lauderdale
3. Central Florida Junior College, Division of Nursing Education, Ocala
4. Daytona Beach Junior College, Department of Nursing Education, Daytona Beach
5. Edison Junior College, Fort Myers
6. Florida Junior College at Jacksonville, Jacksonville
7. Florida Keys Junior College, Department of Nursing, Key West
8. Gulf Coast Junior College, Division of Nursing Education, Panama City
9. Indian River Junior College, Division of Nursing, Fort Pierce
10. Lake City Junior College and Forest Ranger School, Department of Nursing Education, Lake City
11. Manatee Junior College, Department of Nursing, Bradenton
12. Miami-Dade Junior College, Department of Nursing, Miami
13. Palm Beach Junior College, Department of Nursing, Lake Worth
14. Pensacola Junior College, Department of Nursing, Pensacola
15. Polk Junior College, Division of Nursing, Winter Haven
16. Santa Fe Junior College, Gainesville
17. Saint Petersburg Junior College, Division of Nursing Education, Saint Petersburg

The Baccalaureate Degree Programs were:

18. Barry College, Department of Nursing, Miami
19. Florida Agricultural and Mechanical University, School of Nursing, Tallahassee
20. Florida State University, School of Nursing, Tallahassee


1 → 17 Associate Degree Program
18 → 22 Baccalaureate Degree Program
23 → 26 Diploma Program
14
8
20
19
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26
6
3
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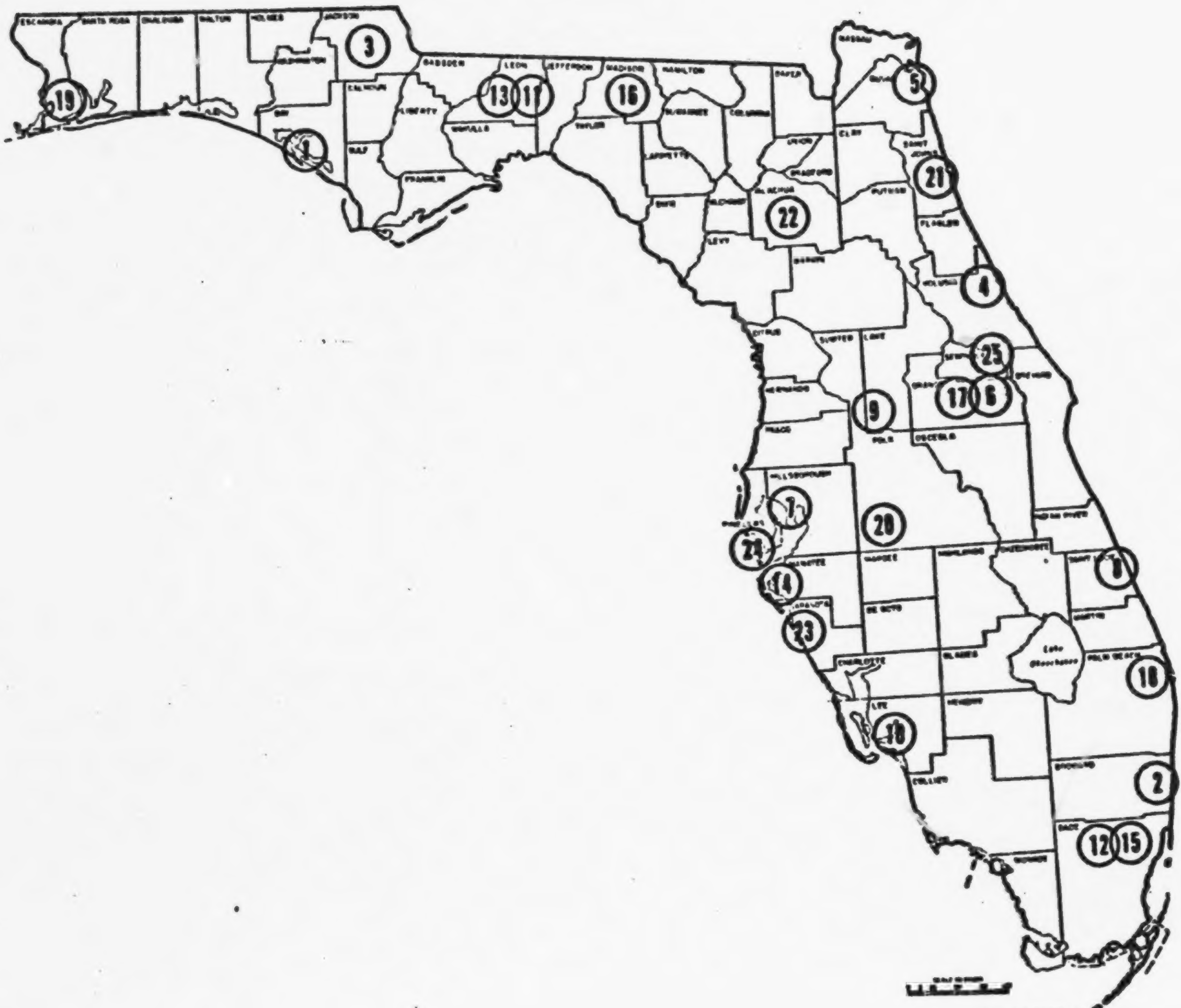
Fig. 5.--Location of Schools of Professional Nursing


3
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18
2
12
15

Fig. 6.--Location of Schools of Practical Nursing

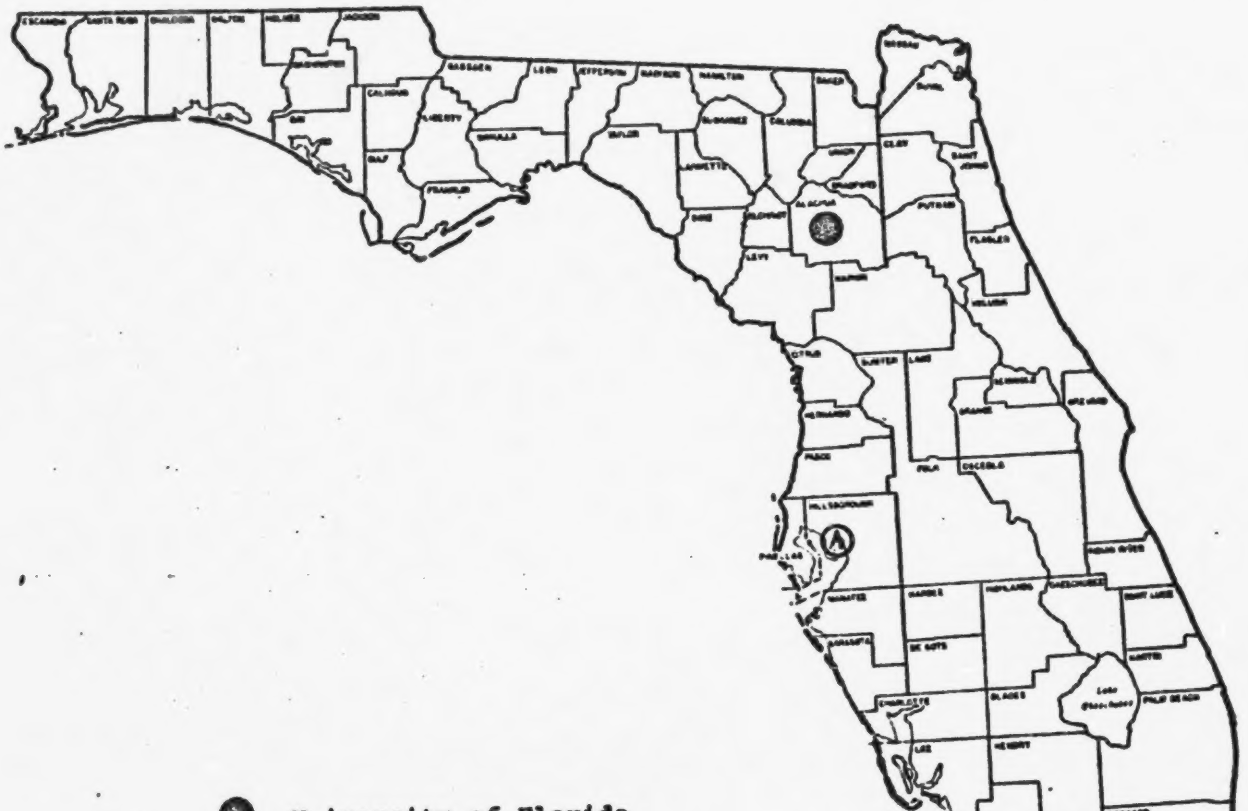
● University of Florida
Ⓐ University of South Florida
Ⓑ University of Miami

Fig. 7.--Graduate Nurse Education Program Sites: Actual and Potential

21. University of Florida, College of Nursing, Gainesville
22. University of Miami, Department of Nursing, Coral Gables

The Diploma Programs were:

23. Gordon Keller School of Nursing, Tampa
24. Jackson Memorial Hospital, School of Nursing, Miami
25. Orange Memorial Hospital, School of Nursing, Orlando
26. Saint Vincent's Hospital, School of Nursing, Jacksonville

The Practical Nursing Programs were:

1. Bay County Adult and Vocational School, Panama City
2. Broward County Practical Nursing Program, Fort Lauderdale
3. Chipola Junior College, School of Practical Nursing, Marianna
4. Daytona Beach Junior College, Practical Nursing Department, Daytona Beach
5. Florida Junior College at Jacksonville, Practical Nursing Program, Jacksonville
6. Florida Sanitarium and Hospital, School of Practical Nursing, Orlando
7. Hillsborough County School of Practical Nursing, Tampa
8. Indian River Junior College, Practical Nursing Program, Fort Pierce
9. Lake County Practical Nursing Program, Leesburg
10. Lee County School of Practical Nursing, Fort Myers
11. Lincoln Vocational School, Tallahassee
12. Lindsey Hopkins Education Center, Miami
13. Lewis M. Lively Area Vocational-Technical School, Practical Nursing Department, Tallahassee
14. Mantee County School of Practical Nursing, Bradenton
15. Mount Sinai Hospital School of Practical Nursing, Miami Beach
16. North Florida Junior College, Practical Nursing Division, Madison
17. Orange County Vocational School, Orlando
18. Palm Beach County Vocational School, West Palm Beach
19. Pensacola Junior College, Vocational Technical Center, Pensacola

20. Polk Vocational-Technical Division, Practical Nursing Program, Bartow
21. Saint Johns County Practical Nursing Program, Saint Augustine
22. Santa Fe Junior College, Practical Nursing Program, Gainesville
23. Sarasota County Vocational-Technical School, Practical Nursing Program, Sarasota
24. School of Practical Nursing, Pinellas County, Saint Petersburg
25. Seminole County School of Practical Nursing, Sanford

Professional nurse education programs are spread across the State in a relatively logical and even pattern. There is much similarity between the placement of these programs and population density. The placement of the programs represent the geographic extremes of the State from Pensacola to Jacksonville to Key West. Four counties have more than one program: Leon County has two professional nurse programs, Alachua has two, Duval has two, and Dade has four. There are four programs in the three contiguous counties of Columbia, Alachua, and Marion. There are three programs in the contiguous counties of Manatee, Hillsborough, and Pinellas. There are three programs in the contiguous counties of Volusia, Brevard, and Orange. And there are seven programs in the connected counties of Dade, Monroe, Broward and Palm Beach (Figure 5).

Practical nurse programs like professional programs are spread across the State, and generally relate to urban population patterns. Three counties have two programs each: Leon, Orange, and Dade. The contiguous counties of Duval and St. Johns have one program each. Ten programs are included in the contiguous counties of Volusia, Seminole, Orange, Lake, Polk, Hillsborough, Pinellas, Manatee and Sarasota (Figure 6).

Program, Enrollment and Graduation Trends

Tables 58 and 59 show change in the numbers of professional and practical nurse education programs over the past decade. They also show the total student enrollments in these programs.

Programs

In 1958, there were ten diploma programs, two associate degree programs, and five baccalaureate professional nurse programs. By 1968, there were only four diploma programs, and still five baccalaureate programs, but the number of associate degree programs had grown to 15. The three-year diploma programs declined in number. The two-year associate degree programs developed at a rapid rate. The development of the associate degree programs in Florida is attributable in part to the support and stimulation by the five-year W. K. Kellogg Foundation project (7: 34), and in part to the apparent popularity and success of the programs (Table 58).

Practical nursing programs have also changed over the decade. In 1958, there were 16 technical school programs, there was one hospital program, and no junior college programs. By 1968, there were two hospital programs,

TABLE 58

NUMBER OF AND ENROLLMENTS IN FLORIDA SCHOOLS OF PROFESSIONAL NURSING, 1958-1968*

Year	Diploma		A. N.		B. S.		Total
	No. Schools	No. Students	No. Schools	No. Students	No. Schools	No. Students	No. Students
1968	4	780	15	1357	5	994	3131
1967	4	742	15	769**	5	887	2398
1966	5	775	15	568	5	847	2190
1965	6	791	13	508	5	787	2086
1964	6	826	11	303	5	662	1791
1963	7	853	9	323	5	877	2053
1962	7	683	6	263	5	262	1208
1961	9	---	4	---	5	---	1151
1960	9	---	4	---	5	---	1235
1959	10	757	2	108	5	151**	1016
1958	10	764	2	104	5	439	1312

*Source: Florida State Board of Nursing data (29).

**One school with a large enrollment did not report. Junior and senior years only.

TABLE 59

NUMBERS OF AND ENROLLMENTS IN FLORIDA SCHOOLS OF PRACTICAL NURSING, 1958-1968*

Year	Hospital No. Schools	Junior College No. Schools	Area V. Center No. Schools	Total No. Students
1968	2	7	16	1,164
1967	2	5	18	846
1966	2	3	19	793
1965	2	4	19	771
1964	2	2	19	737
1963	2	2	19	638
1962	2	2	21	662
1961	1	2	18	549
1960	1	--	20	460
1959	1	--	17	386
1958	1	--	16	384

*Source: Florida State Board of Nursing data (29).

**Or other technical schools since Area Vocational Technical Centers were established in 1963.

seven programs in junior colleges, and sixteen area vocational-technical center programs. It must be noted that some of the junior colleges that had programs in 1968, were designated area vocational-technical centers. It is apparent that the major emphasis of education for Licensed Practical Nurses and for Registered Nurses lies within the State system of secondary and post-secondary education (Table 59).

Enrollments

Pre-service education for the licensure of Registered Nurses has shown a steady, though not accelerated, rise in enrollments during the past decade. The total enrollments in diploma programs has remained about constant. Enrollments in baccalaureate programs have shown a marked increase, though with a plateau effect for the years 1963-1967. Associate degree programs have developed at an accelerated rate (29), (Table 58).

Pre-service education for Licensed Practical Nurses has grown from a modest level of 384 in 1958, to 1,164 in 1969, a three-fold increase (Table 59). Information was not available for differentiating among kinds of program settings (29).

Graduations

Table 60 shows trends in the number of program graduates during the last five years. Increase is noted in the number of total professional school graduates. A similar pattern is shown in practical school graduates.

TABLE 60

GRADUATES OF FLORIDA NURSE EDUCATION PROGRAMS, 1964-1968*

Year	Professional Programs Diploma	 A.D.N.	 B.S.	 Total	Practical Programs Total
1968	315	412	230	957	897
1967	220	337	172	711	747
1966	404	365	189	958	657
1965	275	214	187	676	693
1964	231	205	174	610	559

*Source. Florida State Board of Nursing data (29).

Clinical Resources

Information supplied by the Florida State Board of Nursing shows that in 1968 students in 22 practical nurse programs received clinical experiences in 64 different operating clinical facilities, and that students in 23 professional nurse programs had clinical laboratory experiences in 105 health care centers (29).

On-the-job experiences in actual health settings are essential to the preparation of practical and professional nurses. Such experiences are required by the Florida State Board of Nursing as requisites of program approval. General hospitals provide the bulk of these experiences because they generally have a wide variety of functions from which the student nurses are able to learn. Other settings such as nursing homes, clinics, extended care facilities, physician's offices, psychiatric and other special hospitals provide clinical experiences also, but of a restricted nature.

Pre-service nurse education programs must have provision for clinical experiences for enrolled students. These experiences must be diverse enough to acquaint the student with major areas of nursing practice and to provide for some actual involvement of the student nurse in procedures under direct and close professional supervision. Clinical facilities lacking in scope and size can be ineffectual. Clinical facilities must provide experiences in the various curriculum and examination areas, and these facilities must be extensive enough to accommodate the number of students in the particular program.

Faculties

Information supplied by the Florida State Board of Nursing for 22 practical nursing school faculties, and for 23 professional school faculties shows that a total of 104 faculty members were employed in practical nursing schools in the State in 1968, and 272 were employed in professional schools. The smallest practical nurse school faculty was one person, the largest 12. The smallest professional school faculty was two people, and the largest was 46 (29).

It was noted that several schools had incomplete faculties. There was one faculty position vacant among practical programs. There were 13 positions open among professional school faculties in 1968 (29).

Licensure of Program Graduates

In 1968, the Florida State Board of Nursing reported that among 22 practical nursing school graduating classes, and 23 professional nursing graduating classes the following numbers of students attained licensure by successful completion of Board examinations: 973 out of 1,011 (96.24 percent) became Licensed Practical Nurses; and 635 out of 715 (88.81 percent) became Registered Nurses. One complete class of professional nurses passed the examinations, and eight practical classes passed the examination as a group (29).

The Capacity of Florida Schools of Nursing

The Florida State Board of Nursing reported that in 1968, 23 professional nursing schools had an estimated maximum capacity of 3,443 students, and an estimated maximum capacity of 1,396 for 22 practical nursing schools. There was room estimated for 1,478 students in the 14 associate degree junior college professional nursing programs. An estimated 1,190 students could be accommodated in the five baccalaureate programs. And a 775 student maximum was estimated for the four hospital diploma programs (29).

In the fall of 1968, 3,095 students were enrolled in all 23 professional programs. At the same time 1,262 students were enrolled in the 22 practical programs. These figures represented approximately 90 percent of the maximum capacity estimated for all schools of both types. In other words, at that time 10 percent more students could have been theoretically accommodated in Florida schools of nursing (310 professional nurses and 126 practical nurses) (29).

Summary

It was the purpose of the chapter to present a brief description of the opportunities for nurse education in Florida.

Findings

Four types of basic formal nurse education programs were discussed: practical nurse programs, professional diploma programs, associate degree professional programs, and baccalaureate degree professional programs. Graduate nurse education programs were also briefly discussed. The locations of the various types of programs were considered.

It was noted that the number of diploma school programs for professional nurses has decreased, that the baccalaureate degree professional programs remained constant, and that the number of associate degree professional programs has increased over the last decade. Enrollments in diploma schools have remained relatively constant, while both associate and baccalaureate degree professional program enrollments have increased. Programs for Licensed Practical Nurses have grown in enrollment. The total number of students graduated from both professional and practical nursing programs has increased. The importance of adequate clinical resources was examined. Data were presented concerning nurse education program faculties. The rate of licensure of program graduates was also examined. It was found that existing programs were filled to near capacity in terms of the maximum estimated numbers of students who could be adequately served.

Conclusions

It was concluded from this chapter that Florida has made active efforts to educate increasing numbers of nurses. Present schools have largely been filled to capacity, consequently the expansion of old programs, and/or the creation of new schools of nursing appears to be one answer to chronic shortage of nursing services in Florida.

CHAPTER V

THE FUTURE OF NURSING IN FLORIDA

This chapter is concerned with possible change in nursing practice and education in Florida. It is not the purpose of the chapter to predict needs and trends, but rather to explore some of the factors which possibly can affect the profession. Projection is made of estimated needs for nurses. The potential for recruitment among high school graduates is examined. Other potential sources of nurses are reviewed. The potential for development of nurse education among the various educational institutions of the State is examined as well as the potential availability of area resources for clinical experiences.

Change in Nursing Practice and Education

If anything in our society is inevitable, it is change. The experience of the first half of this century has been one of profound and unrelenting change. That which was contemporary and modern at the time of birth of most adults now seems dated if not antequated. The conditions of change may be assumed to continue and to even accelerate. Such change has brought much progress and much harm into our lives. Much of what has happened during our lifetimes has been planned; change in which man has had some measure of control. Other, often undesirable, change has occurred which was beyond man's ability or desire to control. Nursing education and nursing practice as co-equal dimensions of nursing service can be purposefully changed to meet the demands of a new society with new health needs, or they can be passively evolved in the hope that good will be ultimately served. The latter involves more risk, but less effort.

If planning is chosen over expediency as a mode of change, then it is important that long-range planning be made and put into force. If the nursing profession is to find its place in the space age, it must recognize that nursing education must reflect preparation for the future as well as the present. Nursing education must change in order to meet the challenges of the future. If such planning is to be effective it must be on a state-wide, regional, and national basis. Smaller units must be considered as a part of master plans, but not master plans that are composed of multiple uncoordinated local efforts. This is not to say that school, county, and district units should not participate in, and contribute to, the development of master planning.

For planned change to be effective, the principal elements of change in our society and culture must be considered. It is not sufficient to simply say that "X" number of additional nurses will be needed per population unit. Questions must be asked concerning the number of nurses needed, of what kind; conditions of employment; occupational roles; nature of the civil population to be served, and the specific health care needs of that population. If such factors are to be anticipated, then the problem becomes how to best prepare pre-service and in-service student nurses to meet these needs. These questions unfortunately will not be answered here.

Elements of Change

The factors which cause change in society generally also change the practice of nursing and nurse education. One source cites six major factors which affect the demand for nurses (69, p. 5):

1. More people generally
2. More old people
3. More accidents
4. More chronic disease treated
5. More health insurance
6. Greater affluence

These factors all tend to contribute to increased demands for health services generally and nursing services specifically. The basic fact that there are more people than ever before is an indicator that more health services are needed than ever before. More aged and infirm citizens, in terms of proportion, indicate disproportionately larger health care demands. Increased accident rates account for added health services. As medicine is able to treat more chronic conditions in better ways, increased services have had to be provided. Greater utilization of health insurance has enabled more people to enjoy the benefits of expanded health services. Increased income levels has permitted people generally to receive more and varied health services. All of these elements in our society call for increased levels of nursing services.

Another source (61, pp. 20-22), lists the following factors which tend to serve as elements of change:

1. Urbanization
2. Knowledge growth
3. Communication efficiency
4. Increasing mobility
5. Economic Expansion
6. Occupational expansion and specialization
7. Increased productivity
8. People and ideas in conflict
9. Government involvement

All of the above, in some degree, are changing and will continue to bring about change in our society and ultimately in nurse education and nursing practice. In addition, the researcher suggests the following as some additional elements of change: increased recognition of equality, both in terms of race and gender; scientific and technological advancement, and the resultant knowledge explosion with its science (and art) of cybernation; and manifest ecological factors such as environmental pollution and war.

Two particular elements, especially important to Florida, have been previously mentioned: the rapid growth rate which has been experienced by the State, and the large proportion of aged people who make their retirement homes in Florida. Both of these elements tend to increase the need for change in the level of nursing care.

Nurse education is also affected by changes in education generally. New curricula, new teaching materials and techniques, new elements of fiscal support, and new legal and extra-legal requirements, all must be considered.

It is beyond the scope of this study to provide an in-depth enumeration and analysis of the principal factors which now cause and will continue to cause change in nursing education. The need for such comprehensive study, however, is noted here in the hope that societal trends will be considered when planning is formulated.

On the Future of Nursing in Florida

The future of nursing in Florida, as well as other vocations that require that pace be maintained with change in both education and practice, will depend on the ability of the profession to accommodate change. It will not be sufficient to simply educate and train for the new developing patterns of practice at the present, because in the not too distant future it will become more and more important to learn while in practice. The importance of general education is central:

> The rapid changes in the conceptions of knowledge . . . raise a basic question about the nature of curriculum. As Rene Dubos has cogently put it: "In a world where everything changes rapidly, the practical facts learned in school become obsolete. . . . The only knowledge of permanent value is theoretical knowledge; and the boarder it is, the greater the chances that it will prove useful in practice because it will be applicable to a wide range of conditions. The persons most likely to become creative and to act as leaders are not those who enter life with the largest amount of detailed specialized information, but rather those who have enough theoretical knowledge, critical judgment, and the discipline of learning to adapt rapidly to the new situations and problems which constantly arise in the modern world." One of the consequences of this argument is that the curriculum has to be organized not so much to teach subject matter, as to make fundamental the nature of conceptual innovation and the processes of conceptual thought (8, p. 5).

For those critics of nursing who would claim that the nature of bedside nursing practice never changes, one only has to cite the expanding diversity and interrelated complexity of the health field of which nursing is a part. If instances of antequated and insufficient nursing practice are cited as philosophical proofs of traditionalist argumentation, then they will be invalidated by a changing world.

Projection of the Demand for Nurses in Florida

All estimates and projections must be suspect in some degree. The ability of one observer to foresee the future better as compared to another, all other things equal, must depend at best on past experience and valid current data, and at worst upon luck. Unlike the economist who will hold all other factors constant, ceteris paribus, and apply certain variables to his projection of future demand, a realistic projection of nurse demand must assume potential change in all variables. It is probable that the future of nursing practice and nursing education will be one of much change. Change in role, function, relationships with other health workers, and generally in modified patterns of practice will surely affect the basis for real demand.

For the short-run, the next 15 years, we may however assume that such change will be minimal. Tables 61 and 62 show projection paradigms for professional and practical nurses for Florida. In these projections only two factors are considered: the projected population and the level of individuals in nursing service per population unit. Five different population projection series (47, pp. 22-23) each based on the following different assumptions are used over the next 15 years:

Series I-B assumes that present (1955-1960, 1960-1965) interstate migration will continue at near present levels, and that national fertility will increase moderately from present levels.

Series I-D assumes that migration rates will continue as in I-B, but that national fertility will decline from present levels.

Series II-B assumes that migration rates will decline to a point that in 50 years there will be no net interstate migration, fertility as in I-B.

Series II-D assumes that migration rates will decline as in II-B, but that fertility rates will decline as in I-D.

Series III - no assumptions are given.

TABLE 61

PROJECTION OF REGISTERED NURSES NEEDED FOR FLORIDA, 1970, 1975, 1980, 1985, BY LEVELS OF SERVICE AND PROJECTED POPULATION LEVELS

Year and Series*	Population Estimated*	No. Registered Nurses Per 100 000 Persons Rate				
		200	250	300	350	400
Series I-B						
1970	6,654,000	13,308	16,635	19,962	23,289	26,616
1975	7,721,000	15,442	19,302	23,163	27,023	30,884
1980	9,019,000	18,038	22,547	27,057	31,566	36,076
1985	10,535,000	21,070	26,337	31,605	36,872	42,140
Series I-D						
1970	6,579,000	13,158	16,447	19,737	23,026	26,316
1975	7,438,000	14,876	18,595	22,314	26,033	29,752
1980	8,458,000	16,916	21,145	25,374	29,603	33,832
1985	9,649,000	19,298	24,122	28,947	33,741	38,596
Series II-B						
1970	6,603,000	13,206	16,507	19,809	23,110	26,412
1975	7,552,000	15,104	18,880	22,656	26,452	30,208
1980	8,648,000	17,296	21,620	25,944	30,268	34,592
1985	9,850,000	19,700	24,625	28,550	34,475	39,400
Series II-D						
1970	6,528,000	13,056	16,320	14,584	22,848	26,112
1975	7,275,000	14,550	18,187	21,825	25,462	29,100
1980	8,105,000	16,210	20,267	24,315	28,367	32,420
1985	9,012,000	18,024	22,530	27,036	31,542	36,048
Series III						
1970	6,144,000	12,288	15,360	18,432	21,504	24,576
1975	6,597,000	13,194	16,492	19,791	23,089	26,388
1980	7,157,000	14,314	17,892	21,471	25,049	28,628
1985	7,789,000	15,578	19,472	23,367	27,261	31,156

*Source: U. S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-25, No. 362, March 7, 1967 as reported in (47, pp. 17,18).

TABLE 62

PROJECTION OF LICENSED PRACTICAL NURSES FOR FLORIDA, 1970, 1975, 1980, 1985, BY LEVELS OF SERVICE, AND PROJECTED POPULATION LEVELS

Year and Series*	Population Estimated*	No. Practical Nurses Per 100,000 Persons Rate				
		100	125	150	175	200
Series I-B						
1970	6,654,000	6,654	8,317	9,981	11,644	13,308
1975	7,721,000	7,721	9,651	11,581	13,511	15,442
1980	9,019,000	9,019	11,273	13,528	15,783	18,038
1985	10,535,000	10,535	13,168	15,802	18,436	21,070
Series I-D						
1070	6,579,000	6,579	8,223	9,868	11,513	13,158
1975	7,438,000	7,438	9,297	11,157	13,016	14,876
1980	8,458,000	8,458	10,572	12,687	14,801	16,916
1985	9,649,000	9,649	12,061	14,473	16,885	19,248
Series II-B						
1970	6,603,000	6,603	8,253	9,904	11,555	13,206
1975	7,552,000	7,552	9,440	11,328	13,216	15,104
1980	8,648,000	8,648	10,810	12,972	15,134	17,296
1985	9,850,000	9,850	12,312	14,775	17,237	19,700
Series II-D						
1970	6,528,000	6,528	8,160	9,792	11,424	13,056
1975	7,275,000	7,275	9,093	10,912	12,731	14,550
1980	8,105,000	8,105	10,131	12,157	14,183	16,210
1985	9,012,000	9,012	11,265	13,518	15,771	18,024
Series III						
1970	6,144,000	6,144	7,680	9,216	10,752	12,288
1975	6,597,000	6,597	8,246	9,895	11,544	13,194
1980	7,157,000	7,157	8,946	10,735	12,524	14,314
1985	7,789,000	7,789	9,736	11,683	13,630	15,578

Source: U. S. Department of Commerce, Bureau of the Census, *Current Population Reports,* Series P-25, No. 362, March 7, 1967 as reported in (47,pp. 17,18).

In addition, five levels of nursing service are used in terms of numbers of nurses per 100,000 population. The resultant figures show the number of nurses required to reach a particular level of service at a given time with respect to the particular assumptions given about the general civil population of the State.

Goals for Nurses

In order to give this numbers game real meaning the following must again be considered.

> In 1957, the National League for Nursing recommended a conservative ratio of 300 nurses per 100,000 population. Six years later, taking the expansion of health facilities and programs and other factors into account, the Surgeon General's Consultant Group recommended a minimum goal of 375 nurses per 100,000 population by 1970. More recently, the Division of Nursing of the U. S. Public Health Service reassessed the situation and set a goal for 1975 of 450 R.N.'s per 100,000 population (23, p. 1).

If we assume that the figures presented above refer to the various levels of active Registered Nurses in residence within Florida who are actually employed as nurses, then it is obvious that under any of the projections presented in Table 61, Florida will surely fall short of these goals if present trends hold. The implication is that, given these conditions, Florida will continue to need more nurses than will be available for employment in the profession. It is worth noting that nothing in the literature was found which related to the goals for the number of Licensed Practical Nurses in service per population unit, or proportionally compared with the number of Registered Nurses.

In all probability the demand for both types of nurses will continue to be higher than the supply of nurses willing to be employed at present rates of remuneration.

Clinical Facilities Potential

A factor which must be held in account when new programs or program expansions are considered is that of the availability of clinical facilities. No pre-service professional or practical nursing school can be operated without appropriate provisions for planned clinical instruction and supervised experience. Programs with minimal or with a borderline amount of clinical resources available are probably short-changing the students. Chapter 340-3.07 [4] [i], of Florida State Board of Nursing Regulations (28) states that each practical nursing curriculum shall provide for clinical instruction and supervised experience in medical nursing, surgical nursing, obstetric nursing and pediatric nursing. Chapter 240-3.06 [6] [a], requires that for professional nursing programs "A determination of the number and/or the variety of patients for purposeful clinical learning experiences in each of the clinical services, namely: medicine, surgery, obstetrics, pediatrics, and psychiatry [be made]. Diverse resources may be necessary for specialized areas of learning."

In the previous discussion of clinical facilities in Chapter IV, it was noted that the general hospital tends to provide the major source of clinical experience for pre-service nurse education programs. Other types of facilities are used, but the general hospital with its diverse types of service remains essential. A recent research project in North Carolina recently provided the conclusion (63, p. 91) that, "The findings of this [research] report clearly and decisively indicate that how well a program prepares its students is determined to a great extent by its hospital resources."

Among the recommendations are the following concerning clinical resources (63, pp. 92-93):

1. A practical nursing program should use a hospital with at least a minimum daily average census of 60 patients that has at least an operating room, a delivery room, a clinical laboratory, and diagnostic X-ray.
2. A diploma or associate degree program should use a hospital with an average daily census of 150 or above and with seven or more facilities.
3. Baccalaureate programs should use hospitals with an average daily census of 300 or above and having 12 or more facilities.
4. Enrollment in a nursing program should insure a ratio of at least five patients to each student receiving clinical experience in a given area or department of the training hospital at a given time.
5. Only under unusual circumstances should one hospital be used simultaneously by more than one program for registered nurses.
6. No program should be established in the absence of the availability of a primary hospital meeting the criteria on size and facilities.

If the development of programs is to be determined by the availability of appropriate clinical resources and if hospitals of appropriate size are a further restriction, then a state-wide plan for the development of nursing education of Florida must consider the numbers and sizes of the hospitals in the State. In the end, the determination of whether or not to establish a new program, or whether to expand an old program will not depend so much on finding potential students and providing them with classroom instruction, but rather upon the availability of appropriate clinical resources, especially several hospitals of reasonable size and daily classes.

Table 63 shows the present potential for general hospital based clinical experience resources. According to this tabulation there were 161 general hospitals in operation in Florida in 1968. These hospitals had a total of 26,356 beds. Average daily census was usually less than reported bed counts, and considerably less for many of the smaller hospitals. Average daily census was not tabulated, however, because of incomplete data.

Of the 67 counties of Florida, nine counties had no general hospital. Seventeen counties had general hospitals with a total of 50 or fewer beds. Twelve counties had general hospitals with a total of between 51 and 100 beds. Ten counties each had general hospitals with total bed counts of between 101 and 250, and 251 and 1,000. Nine Florida counties had general hospitals with total bed counts of over 1,001, these are: Alachua, Broward, Dade, Duval, Escambia, Hillsborough, Orange, Palm Beach, and Polk. Figure 8 shows the 1968 array of general hospital beds in

TABLE 63

GENERAL AND SPECIAL HOSPITALS AND HOSPITAL BEDS BY COUNTY IN FLORIDA, 1968*

County	General Hospitals		Special Hospitals	
	No.	Beds	No.	Beds
Alachua	3	1063	2	2127
Baker	1	25	1	1245
Bay	3	236	---	---
Bradford	1	50	---	---
Brevard	4	413	---	---
Broward	7	1534	4	2033
Calhoun	1	36	---	---
Charlotte	2	215	---	---
Citrus	1	25	---	---
Clay	1	31	---	---
Collier	1	116	---	---
Columbia	3	597	---	---
Dade	21	5232	4	476
DeSoto	1	65	1	1988
Dixie	---	---	---	---
Duval	8	2131	2	81
Escambia	5	1151	---	---
Flagler	1	31	---	---
Franklin	1	27	---	---
Gasden	1	59	1	5700
Gilchrist	---	---	---	---
Glades	---	---	---	---
Gulf	1	45	---	---
Hamilton	1	30	---	---
Hardee	1	24	---	---
Hendry	1	70	---	---
Hernando	1	40	---	---
Highlands	2	169	1	58
Hillsborough	9	1478	1	552
Holmes	1	25	---	---
Indian River	1	100	---	---
Jackson	2	94	---	---
Jefferson	---	---	---	---
Lafayette	---	---	---	---
Lake	3	263	---	---
Lee	2	248	---	---
Leon	2	355	1	25
Levy	1	25	---	---
Liberty	---	---	---	---
Madison	1	33	---	---
Manatee	1	286	---	---
Marion	1	190	---	---
Martin	1	78	---	---
Monroe	6	305	---	---

TABLE 63 -- Continued

County	General Hospitals		Special Hospitals	
	No.	Beds	No.	Beds
Nassau	1	45	---	---
Okaloosa	4	390	---	---
Okeechobee	1	25	---	---
Orange	7	1830	---	---
Osceola	3	104	---	---
Palm Beach	7	1155	1	392
Pasco	1	54	---	---
Pinellas	8	2576	2	126
Polk	7	1037	---	---
Putnam	2	98	---	---
St. Johns	1	120	---	---
St. Lucie	1	178	---	---
Santa Rosa	1	100	---	---
Sarasota	3	620	---	---
Seminole	1	180	---	---
Sumter	---	---	---	---
Suwanee	1	77	---	---
Taylor	1	46	---	---
Union	---	---	---	---
Volusia	4	658	---	---
Wakulla	---	---	---	---
Walton	2	84	---	---
Washington	1	75	---	---
Florida	161	26,356	22	15,835

*Source: American Hospital Association data (45, pp. 53-59).

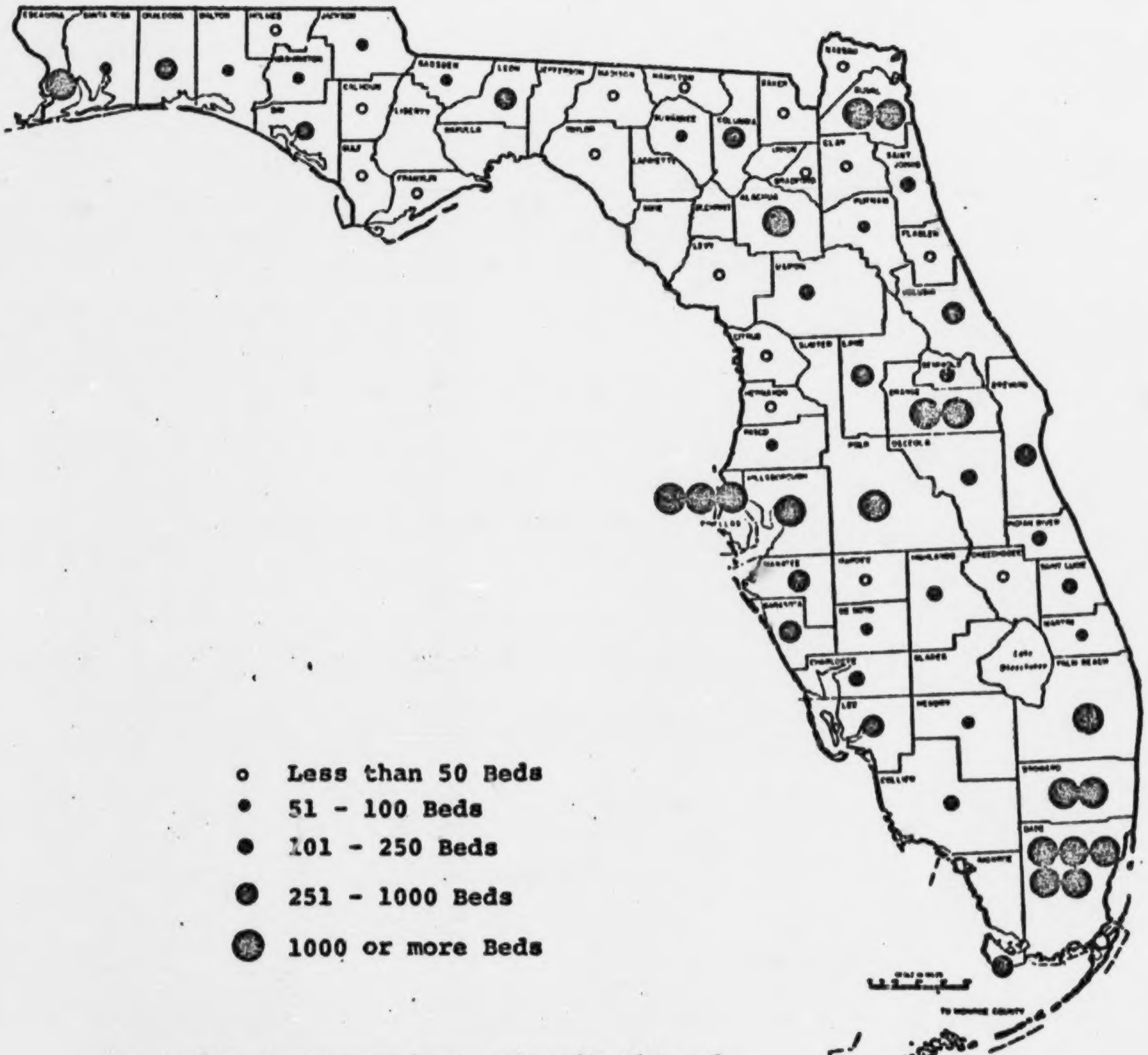
○ Less than 50 Beds
• 51 - 100 Beds
● 101 - 250 Beds
● 251 - 1000 Beds
● 1000 or more Beds

Fig. 8.--Approximate Distribution of General Hospital Beds in Florida, 1968

Florida. Unless new facilities are built in the future, it must be assumed that the planning of new programs and the expansion of old programs should follow major general hospital bed density patterns for the State.

It would seem highly questionable to consider new programs of professional or practical nursing for communities whose total general hospital bed counts are of less than 50 beds. This is because the average daily census of small hospital tend to be smaller proportionally than larger hospitals (45, pp. 53-59). The small bed count and the relatively small numbers of patients would probably indicate inadequate kinds and amounts of experiences available to nursing students. Small general hospitals also tend to have fewer types of facilities than do larger general hospitals. Counties with 51 to 100 beds should probably be considered borderline areas for new programs or expansion of existing programs. If all the Florida counties with 100 beds or less are excluded from potential program development, this would then mean that in Florida only 28 counties could be presently considered as sites for new or expanded professional or practical nurse education programs in terms of 1968 data, no matter what other facilities or support were available. One alternative would be wholesale transportation of classes of student nurses into resource rich areas, though this solution should be examined closely.

Educational Potential

If it is assumed that the future of nursing education, both practical and professional, lies within the existing structure of formal educational institutions of the State, and that general hospitals will tend to largely be the center of clinical learning experiences only, then the following can be considered as the primary educational potential for nurse education within the State. The potential for future nurse education may be found in the formal educational structure of the State: the area-vocational schools and centers, the public community junior colleges, possibly the private junior colleges, the public university system, and the private colleges and universities of the State.

The State plan for area-vocational schools and centers calls for two types of facilities, orientations, independent centers and centers in public junior colleges. Eleven independent centers were planned to be in operation prior to the 1968-1969 school year, and four public community junior college based centers were to be operating by that time. Eight independent and three junior college schools were slated to open in the 1968-1969 year. Three additional independent and five junior college based area vocational centers were to be established after the 1968-1969 school year. Some of these opened ahead of schedule (37, p. 9), (Table 64).

TABLE 64

THE FLORIDA PLAN FOR AREA-VOCATIONAL SCHOOLS*

County Operated	Junior College Operated
AREA VOCATIONAL CENTERS IN OPERATION PRIOR TO 1968-1969	
Bradford (Starke), Union	
Broward (Hollywood)	
Lee (Fort Myers)	
Manatee (Bradenton)	
Orange (Orlando)	
Pinellas (Clearwater)	
Sarasota (Sarasota)	
Suwannee (Live Oak), Hamilton	
Taylor (Perry), Dixie	
Washington (Chipley) Holmes	
Leon (Tallahassee)	
	Brevard (Cocoa); Brevard Junior College
	Madison (Madison), Jefferson, Lafayette; North Florida Junior College
	Volusia (Daytona), Flagler; Daytona Beach Junior College
	Jackson (Marianna), Calhoun; Chipola Junior College
AREA VOCATIONAL CENTERS SCHEDULED TO OPEN IN 1968-1969	
Bay (Panama City)	
Citrus (Inverness), Hernando, Sumter	
Escambia (Pensacola)	
Lake (Eustis)	
Palm Beach (Riviera Beach)	
Dade (Miami)	
Polk (Bartow)	
Hillsborough (Tampa)	
	Columbia (Lake City), Baker, Gilchrist; Lake City Junior College
	Monroe (Key West); Florida Keys Junior College
	Marion (Ocala), Levy: Central Florida Junior College

TABLE 64 -- Continued

County Operated	Junior College Operated
AREA VOCATIONAL CENTERS SCHEDULED TO OPEN AFTER 1968-1969	
Seminole (Sanford)	
Pasco (Dade City)	
St. Johns (St. Augustine), Clay, Putnam	
	Duval (Jacksonville), Nassau; Florida Junior College
	St. Lucie (Fort Pierce), Indian River, Martin, Okeechobee; Indian River Junior College
	Okaloosa (Valparaiso), Walton; Okaloosa Walton Junior College
	Highlands (Avon Park), Hardee, DeSoto; South Florida Junior College
	Alachua (Gainesville); Santa Fe Junior College

Source: Florida State Department of Education (37,p.9).

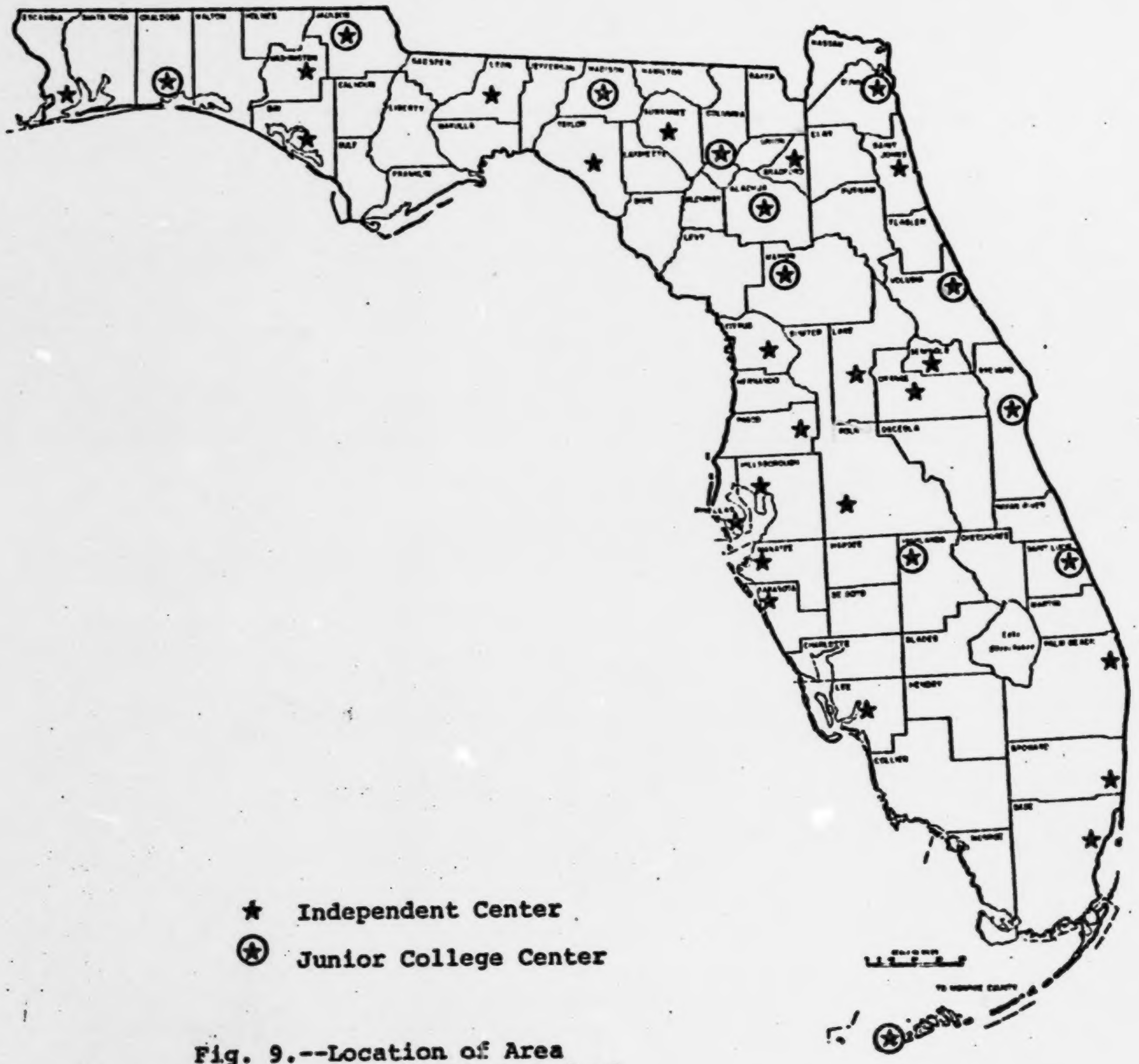
★ Independent Center
⊛ Junior College Center

Fig. 9.--Location of Area Vocational-Technical Centers

Table 65 shows a listing of the Florida system of public community junior colleges. These include 28 separate institutions. In 1967, there was a total full-time equivalent enrollment of 66,413 (31, p. 13).

Table 66 shows a listing of the institutions of the Florida public university system. In 1969 this consisted of seven institutions in operation and two in planning. Total full-time equivalent enrollments in 1967 was 49,505 students (31, p. 36).

Private colleges and universities make up an important part of the total Florida educational system. These include junior colleges, private four-year colleges, and senior colleges and universities with graduate programs (Table 67), (24).

Florida State Department of Education projections for institutions of higher education are shown in Table 68 (31). These figures include all credit undergraduate and graduate full-time equivalent students. It is noted that the State will depend increasingly upon State institutions for post high school education.

The special commitment of area vocational-technical schools to both secondary and post secondary education makes them especially suited for programs of practical nursing. The community junior colleges, many of which are also area vocational-technical centers, are suited for both practical nurse programs and associate degree professional

TABLE 65

THE FLORIDA SYSTEM OF PUBLIC COMMUNITY JUNIOR COLLEGES*

Institution	Location	Fall F.T.E. Enrollment, 1967
Brevard Junior College	Cocoa	2,953**
Junior College of Broward County	Ft. Lauderdale	3,467
Central Florida Junior College	Ocala	1,373
Chipola Junior College	Marianna	1,194
Daytona Beach Junior College	Daytona Beach	3,585
Edison Junior College	Ft. Myers	998
Florida Junior College at Jacksonville	Jacksonville	4,708**
Florida Keys Junior College	Key West	373
Gulf Coast Junior College	Panama City	1,190
Hernando Pasco***		
Hillsborough Junior College	Tampa****	
Indian River Junior College	Ft. Pierce	1,194
Lake City Junior College and Forest Ranger School	Lake City	1,078
Lake-Sumter Junior College	Leesburg	644
Manatee Junior College	Bradenton	2,084
Miami-Dade Junior College	Miami	16,954**
North Florida Junior College	Madison	1,034
Okaloosa-Walton Junior College	Valparaiso	1,200
Palm Beach Junior College	Lake Worth	3,402
Pensacola Junior College	Pensacola	4,076
Polk Junior College	Winter Haven	1,788
St. Johns River Junior College	Palatka	1,161
St. Petersburg Junior College	St. Petersburg	7,037**
Santa Fe Junior College	Gainesville	2,014
Seminole Junior College	Sanford, Florida	1,253
South Florida Junior College	Avon Park	274
Tallahassee Junior College	Tallahassee	956
Valencia Junior College	Orlando	423
28 institutions	Total 1967 Fall F.T.E. Enrollment	66,413

*Source: Florida State Department of Education (31,32).

**Multi-campus.

***To open fall 1969.

****Opened in 1968.

TABLE 66

THE FLORIDA STATE UNIVERSITY SYSTEM*

Institution	Location	Total Fall F.T.E. Enrollment, 1967
Florida Agricultural and Mechanical University, Tallahassee		3,591
Florida Atlantic University, Boca Raton		3,578
Florida State University, Tallahassee		14,389
Florida Technological University, Orlando		----
University of Florida, Gainesville		16,586
University of South Florida, Tampa		9,233
University of West Florida, Pensacola		----
(Proposed University in Dade County)		----
(Proposed University in Duval County)		----
Other**	Gainesville	2,128

*Source: Florida State Department of Education (31).

**Includes University of Florida Institute of Food and Agricultural Sciences, and the J. Hillis Miller Health Center

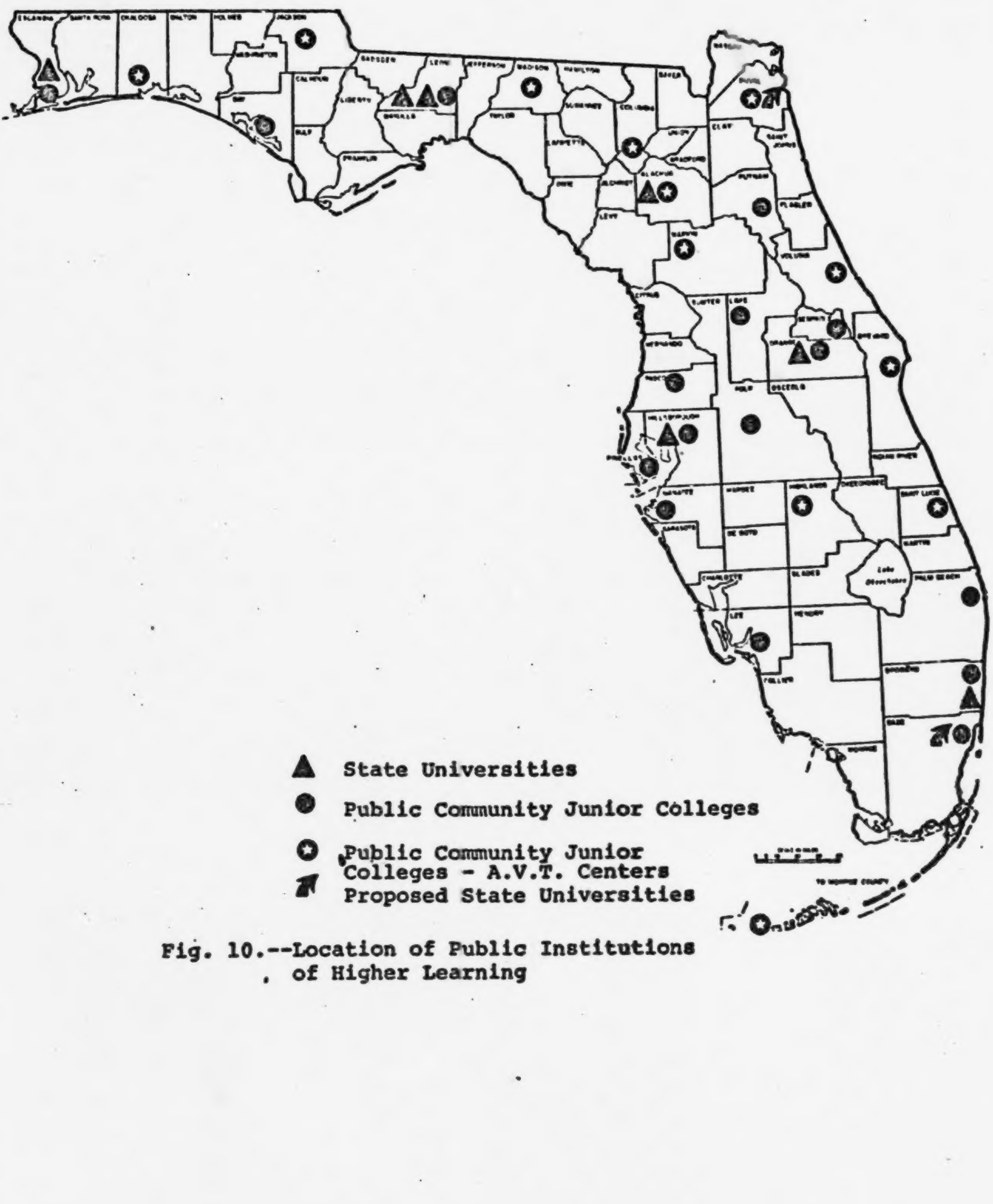
▲ State Universities
● Public Community Junior Colleges
○ Public Community Junior Colleges - A.V.T. Centers
↗ Proposed State Universities

Fig. 10.--Location of Public Institutions of Higher Learning

TABLE 67

PRIVATE COLLEGES AND UNIVERSITIES IN FLORIDA*

Institution	Location	Approximate 1968 Enrollment
PRIVATE JUNIOR COLLEGES		
Florida College	Temple Terrace	385
Jones College	Jacksonville	820
Marymount College	Boca Raton	339
Orlando Junior College	Orlando	1771
St. John Vianney Minor Seminary	Miami	35
Weber College	Babson Park	100
Nova	Fort Lauderdale	n.a.
PRIVATE SENIOR COLLEGES WITH BACCALAUREATE PROGRAMS ONLY		
Barry College	Miami Shores	1165
Bethune-Cookman College	Daytona Beach	1078
Byscayne College	Miami	360
Embry-Riddle Aeronautical Institute	Daytona Beach	2323
Florida Memorial College	St. Augustine	620
Florida Presbyterian College	St. Petersburg	920
New College	Sarasota	258
Ringling School of Art	Sarasota	425
Saint Leo College	Saint Leo	1151
University of Tampa	Tampa	2644
PRIVATE SENIOR COLLEGES WITH BACCALAUREATE AND GRADUATE PROGRAMS		
Florida Institute of Technology	Melbourne	2150
Jacksonville University	Jacksonville	2627
Rollins College	Winter Park	2880
Seminary of St. Vincent De Paul	Boynton Beach	95
Stetson University	DeLand	2312
University of Miami	Coral Gables	14646

*Source: Florida Association of Colleges and Universities (24).

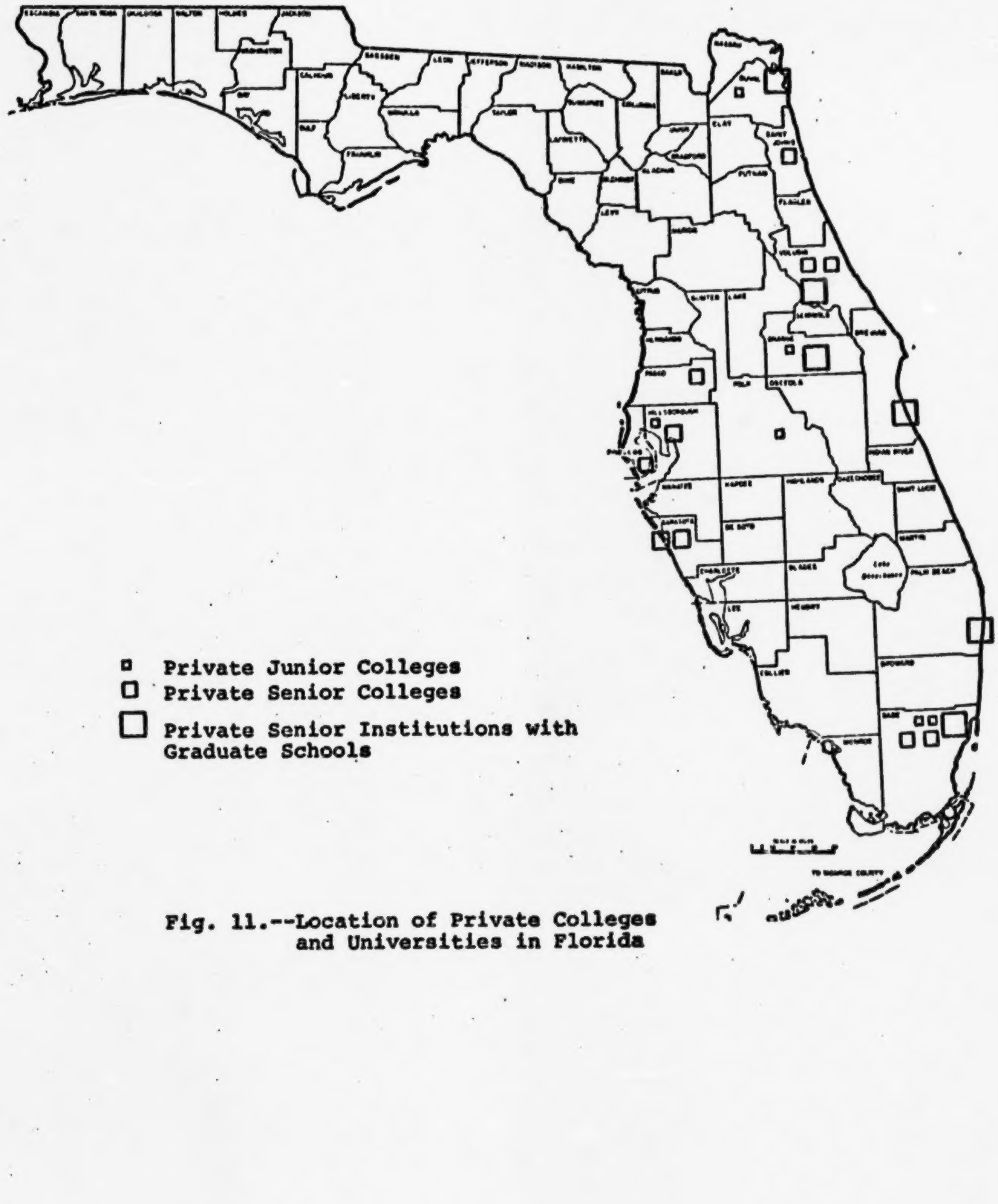
▫ Private Junior Colleges
□ Private Senior Colleges
☐ Private Senior Institutions with Graduate Schools

Fig. 11.--Location of Private Colleges and Universities in Florida

TABLE 68

PROJECTED ENROLLMENTS OF FLORIDA INSTITUTIONS OF HIGHER EDUCATION, 1972, 1975, 1980*

Type of Institution	Year		
	1972	1975	1980
Community Junior Colleges	100,670	123,940	146,070
State University System	89,650	116,550	159,200
Private Colleges and Universities	40,500	48,000	54,500
TOTAL ENROLLMENTS	230,820	288,490	359,770

*Source: Florida State Department of Education (31, pp.13,17,22).

programs. Baccalaureate and graduate programs are of necessity university based.

Florida, in its institutions of post secondary education, has a massive potential for development of nurse education at all levels.

Student Potential

In 1967, 64,190 young men and women graduated from Florida high schools. Of these 20,221 (31.50 percent) entered Florida public junior colleges; 545 (.85 percent) entered private junior colleges in Florida; 6,091 (9.49 percent) entered public universities in the State; 2,054 (3.20 percent) entered Florida private universities or colleges; 5,731 (8.93 percent) entered out-of-state colleges; 3,623 (5.64 percent) entered technical, trade, or other types of schools; and 25,925 (40.39 percent) did not go on to further education immediately. In 1967, over the previous year the number of students entering public junior colleges increased 5.24 percent; those entering private junior colleges decreased 40.73 percent; those entering public universities decreased 4.70 percent; those entering private colleges and universities increased 1.03 percent; those entering out-of-state colleges and universities increased 1.03 percent; those entering technical and trade schools decreased 1.68 percent; and those entering no schools increased .22 percent. There were 63,780 graduates from Florida high schools in 1966, and 64,190 in 1967; an increase of .64 percent. Of Florida high school graduates entering college in 1967-1968: 58.37 percent entered public junior colleges, 1.57 percent entered private junior colleges, 17.59 percent entered public universities in Florida, 5.93 percent entered Florida private colleges and universities, and 16.54 entered out-of-state institutions of higher learning (35, pp. 2, 3).

In the fall of 1968, 1,389 students were admitted to 22 of Florida's programs of practical nursing. At the same time a total of 1,523 students were admitted to 23 professional nursing programs in the State; or 876 students in 14 associate degree programs, 345 students in the five baccalaureate programs, and 320 in four hospital diploma programs (27). It may be assumed that many of these students, but not all of them, graduated from Florida high schools at the end of the previous school year. Many of these entering students surely were not new high school graduates, but had been graudated earlier, while others probably came from out-of-state. Therefore, it is known that less than 2.37 percent of Florida 1967 high school graduates entered professional nursing programs in 1968. And we know that considerably less than 2.16 percent of 1967 Florida high school graduates entered practical nursing programs in 1968 (much less, in fact, since many practical nurse program enrollees had not finished high school).

In the absence of an in-depth study of Florida's recent student nurses it must be assumed that most of these students were female and only a minimum percentage were male. The lack of this type of data and other information critical to nurse education planning (such as student performance, socio-economic factors, demographic data) indicates a need for careful and continued study.

From the brief presentation of information on student potential it is assumed that more students could potentially enter Florida nurse education programs if the opportunity was available and if they were so motivated. This line of reasoning seems to suggest that the solution to nursing personnel shortages in the State can be alleviated simply by providing more nurse education opportunities and proper motivation. Motivation, however, is the rub: an intensive campaign to entice more graduates of both sexes into practical and professional schools probably result in expanded enrollments in programs, but such an approach would probably do little to alleviate post graduate and post licensure attrition from the profession. Motivation for nursing is a two-edged sword: factors which tend to motivate potential students to enter programs, and factors which tend to motivate graduated and licensed students to remain in practice.

It appears that there is less a problem of potential students, than of finding potential nurses who are willing to place themselves on the market.

Projections of future high school graduates provide a probable total of 79,988 Florida graduates for 1971-1972, 90,881 for 1974-1975, and 99,715 for 1979-1980 (31, p. 9).

Summary

This chapter dealt with the potential for change in nursing education in Florida.

Findings

It was found that factors which are contributing to change in society are also of such a nature as to elicit change in the practice of nursing, and in nursing education. Several factors which are contributing to change, both in society and nursing, were discussed. Much change in nursing education must be made as change in society is manifested in changing needs for health services related to nursing practice. Projections of future demand for nursing services in the state were presented. If projected nurse service needs are to be met, additional nurses must place their services on the market. The potential for clinical educational experiences in actual health facilities was examined; the central role of the general hospital as a clinical laboratory for nurse education was discussed. Potential for growth among Florida educational institutions was examined; much potential for development in these was found. The potential for students for nurse education programs was surveyed; and much potential for expansion of nursing school enrollments was also found.

Conclusions

It was concluded from this portion of the study that: more nurses are needed; nurse education must change in order to meet the changing nature and demands of society, and consequently nursing practice change; a potential for expansion among Florida institutions of learning relative to nurse education programs was noted; clinical facilities potential for nurse education laboratory experiences was found to exist among the general hospitals of the State; relatively small numbers of the State's high school graduates actually enter nurse education programs each year, and,therefore, more qualified high school graduates should be encouraged to enter nurse education programs. There appears to be both the need for growth and for change in the future of Florida's nurse education system. The potential for change and growth was found to be present, providing the necessary leadership and support were to be made available.

CHAPTER VI

THE DEVELOPMENT OF NURSING EDUCATION IN FLORIDA: SUMMARY, IMPLICATIONS, AND RECOMMENDATIONS

This final chapter serves as a cumulative presentation of summary findings of the study. Conclusions are presented which relate to aspects of nursing practice and education as examined in the study. Pertinent recommendations are made. Suggestions for further related research are given.

Summary

It was the purpose of the study to examine nursing practice and nursing education in Florida by using published materials, data from State agencies, and data collected in a questionnaire sample survey. The questionnaire was sent to two thousand nurses who were in residence in Florida and who held either active or inactive licensure from the Florida State Board of Nursing. A high level response was experienced in the questionnaire sample survey. The other sources of data also produced much relevant information. A comprehensive profile of Florida's nurse population was generated. This composite picture was developed from information about the personal and demographic characteristics, characteristics of practice and employment, and the general and specific nursing educational backgrounds of the nurses. The current opportunities for nurse education in the State was examined in somewhat less detail. In addition, the potential for growth among nurse education programs was studied. The effects of change and potential needs for nursing services were explored.

The Nurse Population

The total Florida Nurse population consists of several categories of nurses which were beyond the scope of this study. Included in the study were samples of all nurses in the State of Florida who maintained in-state addresses and who were under active or inactive licensure by the Florida State Board of Nursing. Those which were excluded were: all Florida licensed nurses who were listed with out-of-state addresses, those who had allowed their licenses to lapse, and a totally unknown group of nurses who resided in the State, but who had never sought Florida licensing.

On the surface, the level of nursing services available was found to be favorably comparable to other Southeast Region states. Close examination, however, disclosed that while Florida was better off than many states with respect to the number of nurses relative to general population, the levels were inadequate for two principal reasons. First, the total number of nurses actually employed in nursing was found to be low; this dramatically reduced the nurse-population ratios to levels far below supposedly adequate theoretical levels. Second, the nurses of Florida were distributed in the State in a manner which resulted in disproportion among population groups, state regions, and types of nursing personnel available in such areas. REgional allocations of nurses were predictably relative to urban population centers; more nurses were found in or near population concentrations. Allocation by region as to type of nurse (Registered Nurses versus Licensed Practical Nurses) was less predictable, though unique regional allocations were present. In addition, less than optimum usage of nursing personnel with respect to employment roles was suggested by the study.

The Employment of Nurses

The findings of the study concerning the employment of nurses in Florida was also of a predictable nature. Large numbers of actively licensed Registered and Licensed Practical Nurses were either unemployed, or employed in fields other than nursing. Many of the employed nurses were working less than full-time. Primary cause of non-employment in nursing was because of family responsibilities, although other causes such as ill health, or other employment opportunities were important causes.

The nurses of Florida were employed in a multitude of varied work settings and responsibilities. The hours and conditions of their work was also varied. Role specialization was indicated. Many nurses did not feel that their compensation for services was fair. The nurse population was found to be a fluid and mobile group, prone to interstate and intrastate migration. The employed nurses were found to contribute much support to their total family income.

Personal Characteristics

Most of the State's nurses were female. Racial balance was present among Licensed Practical Nurses, but was missing among Registered Nurses. A full and predictable age range existed among both types of practicing nurses with predictable declines among age-range groupings prone to the initiation of parenthood.

Educational Preparation

Pre-service general and nursing education was varied in terms of type of licensure, and of regional location. Most licensed Registered Nurses studied nursing in hospital diploma programs; Licensed Practical Nurses were educated mainly in hospital or vocational-technical school programs. The majority of Florida's nurses were educated, and first licensed outside the State. Indications of additional training were somewhat restricted, though many nurses indicated the desire for more education.

Nurse Education Opportunities

A brief study of Florida's efforts for Registered and Licensed Practical Nurse education revealed that the State was making continuing efforts to educate more nurses in six types of pre-service programs. A decline was noted in hospital based diploma nurse programs for Registered Nurse preparation, with an increase in the number of community junior college associate degree programs. The commitment of area vocational-technical centers (both those in and those separate from community junior colleges) to the preparation of Licensed Practical Nurses was noted. No indicators were found which would tie the level of nursing services available in an area solely to the presence of a nursing school in that particular area.

Potential

Projected estimates of the levels of nursing services required were observed to be less than present growth rates due to native production, and due to net in-migration of nurses from other states. Potential growth in the numbers of nurses needed, and new and more sophisticated demands on nursing personnel in the future indicate that more programs and new curriculum patterns. Present programs, according to study findings, were at near maximum capacity. The study, however, also indicated a great potential among Florida institutions of learning, potential clinical experience facilities, and potential students for present program expansion and new program development. The need for comprehensive planning for nurse education for present and future needs was demonstrated.

Conclusions

The study provided two principal areas for speculation: the practice of nursing, and basic nurse education.

Based upon the information gathered in the study, the following generalizations are suggested.

Nursing Practice

It is the opinion of the investigator, that while there was found to be an admitted nursing shortage in Florida, the true character of this shortage was not a gross shortage of nurses in the State, but rather an insufficient number of nurses who were willing to place their services in the market. Florida's nursing shortage must not be considered a shortage of nurses, but a shortage of nursing services available. The implications of this are manifold. At least for the present, there would be, in theory, sufficient levels of nursing services available provided that all potentially able active and inactive licensed nurses were to be employed full-time as nurses; and provided that optimum utilization of their talents for nursing was fully made. Since neither of these suppositions were true, the probable causes of the resultant shortage must be examined.

The literature is full of varied and differing opinion concerning the nature, causes, cures, and prospects relating to the national shortage of nurses (3; 11; 39; 49; 50; 51; 54; 60; 64; 75; 81; 87; 88; 90), but the most telling of these arguments (in the researcher's opinion) was that expressed by Yett (90), whose contention was that the supply of nurses (of the level of nursing services offered) was related not to the number of total nurses, but rather to the number of nurses, who under existing wage and employment conditions were willing to be employed as nurses. It follows that if the working conditions and the remuneration levels of the profession were more attractive, more nurses, would offer their services. In addition, as benefits increase the number of potential nurses who would enter nurse education would increase. And, as a consequence, the nurse education system would need to expand at a more rapid rate.

If the above is true, then there are a number of strategies which could increase the effective level of nursing services: (a) increased pay rates and employment benefits which would tend to cause more of the unemployed nurses already under licensure to become employed and more persons would also tend to enter programs of nurse education for eventual inclusion in the nursing services market; (b) more flexibility among the employers of nurses as to time and hours of work could bring additional nurses into practice especially those on a modified part-time basis; (c) increased aid to persons of low economic resources would enable more persons to engage in nurse education, and ultimately expand the available nurse resource level (these persons would tend to be more likely to remain in-service); and (d) a general re-assessment of the roles of nurses could appreciably increase the effective amount of nursing services available if other personnel would be appropriately assigned those functions which lie outside the nursing role for the particular situation (this last strategy suggests both more precise role definition for practice and educational specialization for the specific nurse service needs of specific nurse employment situations).

It is interesting that many nurses who were not employed in nursing indicated that they could not afford to practice because of family responsibilities. Many of these could practice nursing if the level of remuneration would permit coverage of child care, housekeeping, and transportation costs--many nurses indicated that they could not afford to practice because of the cost of these required additional services for family maintenance. Others felt that they could not afford to be absent full-time from their families, but if work scheduling was more flexible as to time and duration, they would practice on a part-time basis.

Nurse Education

If the needs of Florida for nursing services are to be served adequately the most responsive elements of the State for nurse education must be brought to bear in planning for provision of the necessary levels of quality nursing education. Planning for change must therefore be accomplished. It is the opinion of this writer that while non-public health and educational institutions have made, and will probably continue to make, substantial contributions to nurse education at all levels, it is with the public system of educational institutions that the future responsibility of nurse education for Florida will lie. The public institutions of vocational and higher education of Florida should carry the major responsibility for nurse education. Current levels of responsibility for nurse education should be increased in public institutions in order that more nurses would be available for employment. The people of Florida must be made knowledgeable about the need for increased quantity and for increased quality of nurse education, with respect to providing additional nursing services. And they must be shown the necessity for providing the essential support for such expanded and improved education.

As the present and future shortages of nursing services become more strongly felt in the State in the form of restricted and abbreviated health services, it will become increasingly apparent that proportionately higher levels of nursing personnel will need to be educated and re-educated for nursing practice. Florida has two alternatives at the present: to maintain present rates of development of nurse education programs (pre-service, in-service, refresher, *et al.*), or to initiate new and bold attempts to begin to adequately meet today's and tomorrow's nurse service needs.

A definitely accelerated campaign of pre-service education for Registered and Licensed Practical Nurses by the various State educational institutions would do much to alleviate existing and future gaps in nursing services. These institutions should include:

> Area Vocational-Technical Centers for practical nurse programs,
>
> Community Junior Colleges for both practical and professional nurse programs, and
>
> State Universities for professional and graduate nurse programs.

If such a campaign was accepted by Florida state government, and if the necessary resources were made available for such a program benefits would accrue in the form of integrated planning and in improved curricula. Such a program commitment would not exclude the possibility of cooperative arrangements with private institutions with nursing schools; for instance, hospital programs could receive assistance from public community junior colleges for general education and for the classroom nurse education experiences. A generally accelerated program of planning for increased nurse education among the several components of the State educational system could provide the basis for the dissolution of many of the traditionally nagging problems which have been associated with current forms of nurse education and resultant nursing practice, such as: the need for strengthened bases of general education; the need for increased opportunity for upward mobility among different types of nurse education; the need to develop specialty areas for future nurses; and for much greater development and organization for such varied types of programs as opportunities for educational regeneration of nurses long out of practice, credit and non-credit in-service education programs, and advanced level or degree programs designed to be participated in by nurses in continuing practice. (The 1969 study of Styles (74) was a step toward the resolution of some of these issues.) A key factor in such a comprehensive program would be the increased production of nurse educators with advanced degrees; the expansion of the current program and the creation of new programs of graduate nurse education are essential. Central to such a campaign would be a deliberate adequate provision of fiscal support.

Implications and Recommendations

Since it was a purpose of this study to formulate recommendations for change and improvement of nurse education for Florida based upon implications which in the judgment of the investigator should arise from the study, the following implications and recommendations are presented.

1.0 A shortage of nursing was shown to exist in Florida in terms of effective numbers of actively practicing nurses providing nursing care. Therefore, nursing education ought, by all practical strategies, to provide means to alleviate this shortage of nursing services.

1.1 One aspect of this shortage of nursing services was shown to be due to inadequate numbers of nurses. Therefore, more nurses should be educated through: (a) the filling to capacity of current programs of pre-service nurse education; (b) the expansion, insofar as possible, of present pre-service Registered and Licensed Practical Nursing *programs; (c) the establishment of new schools of nursing in institutions where student potential, institutional development potential, clinical resources potential, and employment potential is present; and (d) the self-improvement (or closing) of those schools of nursing, if any, which fail in their responsibility to provide at least adequate educational experiences for their students*.

1.2 Another aspect of the Florida shortage of nursing services was found to be not in the lack of sufficient numbers of employable nurses, but in the lack of sufficient numbers of qualified nurses who were willing to enter practice. *Therefore, all efforts should be made to provide encouragement and ease of opportunity for nurses who are not employed because of need for education to enter refresher programs designed for the re-employment of nurses long out of practice*. It must be recognized, however, that if any real and significant progress is to be made in the re-employment of the vast numbers of Florida nurses who are not now practicing, major reforms must be made in the area of practice itself and not education alone. Among the reforms needed are: increased and competitive remuneration rates and improved employment benefits, changes in the patterns of time of work (especially for nurses with family responsibilities), change in the actual employment role of many types of nursing practice, and improved employment sociological relationships. It is worth nothing that, to this writing, the nursing profession has failed to capitalize on the power of collective action as tools for modifying employment conditions; one good answer to this is that they so highly value their freedom, mobility and individuality that they are unwilling, for the present, to unionize. But this writer is also reminded that the teaching profession which, probably no less values these attributes, is at this writing beginning to recognize the value of collective action.

1.3 Central to any nurse education program are the instructors, and teacher-administrators who make nurse education a reality. Therefore, more nurse-teachers must be educated, both at the baccalaureate degree level and at the graduate degree level, to insure adequate numbers of instructors and leaders for nurse education in the State by: (a) developing and expanding existing programs for nurse education, (b) establishing new programs, and (c) providing financial inducements for potential nurse teachers.

1.4 The nurse shortage has been acknowledged to be of a qualitative nature as well as a quantitative one. The educational background of many nurses was found to be sparse, and nursing competencies must be assumed to vary accordingly. One important strategy for upgrading the quality of nursing care, in addition to educating new personnel, is by providing additional educational opportunities for those in service. Therefore, inducements should be made to encourage the continuing education of nurses in *practice, and this should be done by making allowances in terms of employment, by providing fiscal benefits, and perhaps even by requiring such continuing education*.

1.5 The actual numbers of practicing nurses of both types as compared to gross population size showed considerable variance among the different regions of the State. This factor and other indicators suggested much in-balance and acute shortages of nursing services in particular areas. Concentrations of nursing services were indicated to be needed to fill gaps in particular localities. *Therefore, the present and potential programs in these identifiable areas must receive special encouragement and support in order to make the special efforts required to educate additional nurses for employment in these particular areas*.

1.6 The growing commitment of public area vocational-technical centers (both in and separate from community junior colleges) and of comprehensive community junior colleges to nurse education was shown to be significant. The massive potential of these often coterminous institutional systems for nurse education must be realized and utilized. *Therefore, central to the development of nursing education must be a careful consideration and development of the respective and common roles of area vocational-technical centers, and community junior colleges under the Florida State Department of Education*.

1.7 A secondary commitment of the area vocational-technical centers and the public community junior colleges which relates to nurse education is an apparently much still-to-be-developed range of programs which includes refresher courses, forms of in-service nurse educational development, and other programs and courses designed to enable nurses to gain added competences in their profession. The community junior colleges and other state institutions have made significant contributions in this field, but there is a massive potential in these institutions to provide the educational foundation for an educational regeneration of Florida's nurses. Therefore, a coordinated effort should be made within the system of area vocational-technical centers and community junior colleges to develop a comprehensive plan for programs of in-service and refresher education for the nurses of the State.

2.0 Since no educational program can exist without students, a fresh look at the nurse education student population was indicated to be needed. Additional student nurses will be required in any sort of acceleration in the level of nurse services production. Such persons may be either students for pre-service nurse programs, or they may be nurses of post-licensure status who would benefit from added educational opportunities. Therefore, it is imperative that additional students be sought for all types of nurse education programs, that proven means of recruitment be employed, and that new and innovative strategies for recruitment be employed.

2.1 While many of Florida's pre-service nurse program students enter nurse education programs directly from high school, high school graduates represent a largely untopped reservoir of potential students. _Therefore, campaigns should be launched to: (a) encourage more high school students (of both sexes and the several racial-socio-economic groupings) to consider nursing as a career, (b) to make nursing to appear and actually to be a more attractive vocation._

2.2 Improvement in both the quantity and quality of nursing services could be attained if more of the under-educated, unemployed, and underemployed licensed nurses could be made to take advantage of in-service and refresher programs. _Therefore, efforts should be made, directed at both nurses and employers, to encourage the participation in post-licensure programs of nurse education._

2.3 From the study it was found that more nurses in practice would consider educational programs if fiscal means were available in the form of loans, grants, or other forms of assistance. If such assistance was to be made to potential pre-service nurse education students in excess of present assistance program levels, there probably would be increased numbers of the State's high school graduates entering nursing programs. Many potentially fine nurses have been shunted off each year into less rewarding (though many times higher paying) employment simply because fiscal inducements have been lacking. _Therefore, if more students_ are to be attracted into nurse education programs, additional and new types of financial assistance must be found as a mode of inducement, which should include: loans, tuition waivers, grants, living stipends, and work-study programs for pre-service students; and loans, work-time release, tuition payments, and pay increment increases for post-licensure nurses. Special inducements should be provided nurses at the baccalaureate level in order that they would be more inclined to continue with their education.

2.4 There were several demographic groupings of persons which were found to be almost statistically lacking from the study results which dealt with the Florida nurse population. These groups included: male nurses, for both Registered and Licensed Practical Nursing groupings; and Negroid racial group persons among the Registered Nurse strata. In addition, it was the supposition of the researcher that persons of ability among relatively disadvantaged socio-economic classifications would tend to remain in practice (in proportionally greater numbers and for longer durations than would persons of greater financial means) due to economic necessity. Therefore, efforts should be made to enable and encourage desirable special population groupings of potential student nurses to enter nurse education programs; and that these should include: more male student nurses; more racially diverse student nurses; more student nurses from lower, or disadvantaged socio-economic levels; and more older student nurses whose family responsibilities are diminished, but whose aspirations are not diminished.

2.6 Presently the doors are essentially closed to the entry into the nursing profession of male military personnel whose training has enabled them to practice nursing (and sometimes even medical) functions frequently in the worst of possible conditions with high degrees of effectiveness. The military medic, though he possesses considerable training and experience, must complete a full pre-service nursing program before he may apply for licensure. A great potential for service has been lost because of this. Therefore, all means must be taken to provide the highest level of acceptance possible of the education, training, and experience of military personnel of nursing background toward entrance and credit in pre-service nurse education programs.

3.0 Adequately staffed faculties are another essential of effective nurse education programs. Therefore, all efforts should be made to increase the State's supply of qualified nurse educators by: (a) providing competitive salaries to attract educators from outside Florida, (b) accelerating the in-state development of nurse education instructional personnel through expanded and new nurse educator programs, (c) to provide inducements in the form of scholarships, grants, and other forms of aid to potential nurse educators for the development of their educational competencies.

3.1 It was the opinion of the investigator that one criterion for the assessment of quality in most types of educational situations is that the instructor should have attained an educational competency level superior to that in which he is to teach. Therefore, it would seem desirable for principal instructors of nursing education programs to have completed successfully an educational program at a level higher than the level of the program in which the instruction is to take place. This would imply minimum levels for instructors in Licensed Practical Nurse programs to have a minimum of a baccalaureate degree as Licensed Practical Nurses, or Registered Nurse licensure; instructors in associate degree Registered Nurse Programs to have a minimum of a baccalaureate degree; instructors in baccalaureate degree programs to have at least the master's degree. Such levels should be recommended as theoretically desirable and goals to which programs should strive as one dimension of quality in nurse education.

4.0 The nurse education program must have adequate facilities available for general education, where required; for classroom nursing instruction; and for planned clinical laboratory experiences in actual work settings. Therefore, it is essential that all nurse education programs have adequate facilities bases in which provision is made for necessary general education, required didactic nursing instruction, and essential supervised clinical experiences; and where these are not available that the facilities be made available to an acceptable level, or where an acceptable level cannot be obtained that the program be abandoned.

5.0 A means of upgrading the quality of nurse education, and therefore nursing service, is through improved pre-service and in-service nurse education curricula. The content of nurse education programs should be constantly researched for instructional improvement. Teaching takes place only when learning takes place, and learning is increased through adding meaning to the content and methods of educational programs. Therefore, all efforts should be made continually to evaluate the effectiveness of nurse education programs with the intent of improving the quality of content and instruction.

5.1 Most of the nurses who were questioned in the sample survey were desirous of some additional post-licensure educational opportunities. The opportunities thus expressed as desired included nursing-related and non-nursing-related types of education. The highest frequencies of desired types of education were found to be among the grouping of in-service refresher and other learning experiences which could be participated in by an employed nurse (and not necessarily degree programs). Therefore, emphasis should be placed on the development of meaningful types of programs which could be participated in by practicing nurses in order to receive experiences leading to expansion of professional competence, and at least partially to recognized college credit.

5.2 Among the findings of the study one of the least defensible and most notorious, was the lack of vertical educational mobility among the various levels and types of nursing. For instance, if an associate degree nurse desires to complete a baccalaureate degree in nursing she must be prepared to receive comparatively little credit for her associate degree; a Licensed Practical Nurse or a diploma school Registered Nurse will receive little or no credit toward a Registered Nurse baccalaureate program. No credit is given for experience although such experience may be considerable. Therefore, efforts should be made, insofar as possible, to break down existing barriers in the requirements of nurse education programs that un-necessarily restrict easy upward mobility from one type and/or level of nursing education to another.

6.0 Nursing education of all types can benefit through coordinated and comprehensive planning. Such planning can provide for change before the individual programs are forced to change after the fact. Coordinated planning can uncover needs and more effectively present these needs for fulfillment. Coordinated planning can result in innovation and leadership for Florida nurse education programs. Effective planning, planning which is actually put into effect, can result in the avoidance of gaps in nursing service which would be directly due to not educating enough nurses. Therefore, it is highly recommended that all efforts be made for the continuing and coordinated planning (among *nurse education programs and other health-related programs)*: *(a) through the formation of individual school planning efforts, (b) through coordinated state-wide planning with and through the aid of governing and other agencies, and (c) through the establishment of consortia for exchange of information and for cooperative planning*.

7.0 The general field of nursing education is ripe with possibilities for innovation and continuing research. *Therefore, each nurse education program should consider itself, among other things, an educational laboratory rather than a processor of tried and true content and methods*.

7.1 A particularly important area for research on innovation is in the development of modified roles for nurses in practice situations. Current lack of proper utilization of the full resources of practicing nurses has tended to make the shortage of nursing services worse. *Therefore, special efforts should be made by nurse education, especially graduate and baccalaureate schools, to formulate, research, suggest (to the health services profession), and educate for: (a) creative usage of nursing personnel, (b) the realistic and most effective assignment of nursing personnel, and (c) specialization of role among nurse personnel*.

Some interesting possibilities for future investigation in nursing education and nursing practice are presented below. The implications and recommendations presented above are neither exhaustive, nor, for the most part, unique to Florida on this study. Crisis in the supply of nurse services and the need for change in nurse education is present in most states. Appendix D is a presentation of implications and recommendations made in four recent studies which are representative of investigations made in other states.

Suggestions for Further Study

The following topic areas are presented for possible future study, analysis, investigation, and/or planning. This is not an exhaustive listing, rather it is a grouping of topics which, to the investigator, seemed to be implications of the above study. Three general fields are presented: nursing practice; nurse education; and master planning, a composite of the two preceding fields.

I. Nursing Practice:

Specifically, what are the economics of nursing?

What elements exist in the sociology of nursing?

What are the specific and long-range needs for nursing personnel for Florida?

What reform is needed in the assignment and utilization of nurses?

What patterns of practice are emerging with respect to types of nurses and other ancillary personnel?

What is the particular nature of nurse unemployment, non-employment, and under-employment?

What areas of specialization exist in nursing practice?

II. Nurse Education:

What is the nature of students in nurse education programs with respect to: personal characteristics, mode of recruitment, and means of selection?

What are the principal causes of attrition among student nurses?

What is the nature of present faculties in nurse education programs, and what changes are indicated?

What is the nature of the various nurse education program, and what changes are needed?

What paradigms may be proposed for innovation and change in nurse education, with respect to: general education, specific nurse education experience, and specialization for practice?

What philosophical differentials exist among nurse education programs?

What should be the guidelines for developing comprehensive programs of post-licensure nurse education?

III. Masterplanning:

What kinds of statewide and regional masterplanning for nurse education are now being conducted?

What are ideal data collection paradigms for masterplanning?

What is the role of local masterplanning?

What is a desirable plan for statewide masterplanning of nurse education and placement for Florida?

The importance of continuing study and research in nursing practice and education must be emphasized. A deliberate and strongly supported program of research in nursing will find concrete application and measurable effect in the quality and quantity of nursing services available to the people of Florida. Again the dictum must be stated that research in itself is meaningless unless action takes place because of it: research without effect is futile. It is the hope of this researcher that this dissertation will offer for some measure of beneficial change for the profession of nursing in Florida and ultimately lead to better health services for the people of Florida.

APPENDICES

APPENDIX A

Papers

Item 1: The Survey Questionnaire

Item 2: The Survey Questionnaire Cover Letter

Item 3: The Survey Questionnaire Follow-up Letter

Item 4: The Survey Questionnaire Follow-up Card

Item 5: The Survey Short Form Questionnaire Card

Item 1

(questionnaire number)

FLORIDA NURSE STUDY QUESTIONNAIRE
Institute of Higher Education
College of Education
University of Florida
Gainesville, Florida

(address label)

Please give the following information. It is important that you answer each question. All individual responses will be kept in confidence.

Year of birth__________Sex_____Race_____Marital Status______
Telephone Number______________.

1. Please check the type of pre-service nursing education you completed prior to licensure:
   _____Licensed Practical Nurse, technical institute or vocational school program.
   _____Licensed Practical Nurse, hospital program.
   _____Licensed Practical Nurse, junior college program.
   _____Registered nurse, diploma program.
   _____Registered nurse, associate degree program.
   _____Registered nurse, baccalaureate program.

   In what state did you receive this pre-service education?______________________.
   Please note any additional or specialized education or training____
   ____.

2. Please check the space which indicates the highest level of formal education you have successfully completed:
   _____Less than tenth grade.
   _____Tenth grade.
   _____Eleventh grade.
   _____High school graduate, or equivalent.
   _____One year of college.
   _____Associate degree, or two years of college.
   _____Three years of college.
   _____Baccalaureate degree.
   _____Some college credit beyond the baccalaureate degree.
   _____Master's degree.
   _____Doctor's degree.

3. Please check the category which best applies to you:
_____I am now employed in Florida as a nurse.
_____I am currently unemployed.
_____I am currently employed in other work as________
_________________.

4. If you are not now employed as a nurse, please check the reason which best describes why you are not working as a nurse?
_____Family responsibilities, including pregnancy.
_____Personal health reasons, not including pregnancy.
_____Retirement.
_____Difficulty in finding employment as a nurse.
_____Other, more desirable, employment opportunities.
_____Low pay.
_____Poor working hours.
_____Low status or lack of respect.
_____Need for more training or education.
_____Other, explain____________________________________.

Do you plan to seek employment as a nurse?
Yes____No____If so, when?______________________________.

5. If you are now employed as a nurse, please check the category which applies to you:
_____I am regularly employed full-time as a nurse.
_____I am regularly employed part-time as a nurse (example: two or three days per week).
_____I am employed as a nurse on an irregular basis.

If you anticipate a change, please check the appropriate space:
_____I plan to discontinue work as a nurse.
_____I plan to work as a nurse on a part-time basis.
_____I plan to work as a nurse on a full-time basis.
_____I plan to work as a nurse only occasionally.

Please give the approximate date of this change_________
and the reason for doing so____________________________
____.

6. If you are now employed as a nurse, what is your current field of employment? Please check the category which best applies to you:
_____Hospital.
_____Nursing home or extended care facility.
_____Office, Physician's____or Dentist's____Other______
____________.
_____Private duty.
_____Public health (other than schools).
_____School.
_____Industrial, occupational.
_____Nursing education.
_____Other, please specify____________________________.

7. If you are now employed as a nurse, do you work in the county of your residence? Yes_____No_____.

If no, please write in the county in which you work
__________________________.

How far from your residence is your place of work?
________________________miles.

How many work hours do you average per week?
______________________hours.

What is the present time of your work? Check one:
_____Morning.
_____Evening.
_____Night.
_____Nine to five.
_____Rotating shift.
_____Other, explain__________________________________.

Are you an employee of the Federal Government? Yes_____
No_____.

If yes, are you actively commissioned? Yes____No_____.

How long have you worked in your present employment?
__________________________.

How long did you work in your previous employment, if any?___________________________.

How many years have you been employed as a nurse?
_________________________.

Has there been any major interruptions in your career as a nurse? If so, how many?_______________________And for what reasons?____.

8. In what nursing capacity are you now employed? Please check the category which best applies to you:
_____Hospital director or assistant.
_____Hospital supervisor or assistant.
_____Hospital head nurse or assistant.
_____Hospital staff nurse.
_____Hospital nurse anesthetist.
_____Nursing home nurse.
_____Public health administrator, consultant, or supervisor.
_____Public health staff nurse.
_____Professional nurse educator.
_____Practical nurse educator.
_____Occupational or industrial nurse.
_____Private duty nurse.

8. Continued

_____Office nurse for a dentist____, or physician_____.
_____School nurse.
_____Other, specify_____________________________________.

How much of your time is used mainly with patients and beside nursing?
0-25%_____. 26-50%_____. 51-75%_____. 76-100%______.

9. If you are now employed as a nurse, how many total family members do you help support?____________________.

What percent of total family income do you earn as a nurse?
0-25%_____. 26-50%_____. 51-75%_____. 76-100%_____.

What is your present average monthly gross pay?
$______________.

Do you consider this fair compensation? Yes____No____.

10. Have you recently moved into Florida? Yes____No_____.
If so, from where?___________________________________
when?______________________.

Do you anticipate leaving Florida? Yes____No____. If so, to where?____________________when?________________.

Do you anticipate moving within Florida? Yes____No____.
If yes, to where?______________________________________
when?______________________.

Have you recently moved within Florida? Yes____No____.
If yes, from where?___________________________________
when?______________________.

11. Do you anticipate changing your licensure status at some definite time? Please check the appropriate space:
_____No.
_____Yes. To Active Status in 19____.
_____Yes. To Inactive Status in 19____.
If yes, why do you plan to make this change?__________
____.

List any other states, territories, or countries in which you are now licensed as a nurse:________________
____.

In what state, territory, or country were you first licensed?____________________when?__________________.

12. As a nurse, what further educational opportunities do you desire? Please check the appropriate space or spaces:

_____None.
_____High School completion.
_____Workshops.
_____Conferences.
_____Visitations to health centers and agencies.
_____Visitations to educational centers and agencies.
_____Planned refresher courses.
_____Non-credit college courses.
_____Credit college courses.
_____Associate degree, in nursing_______, or other field_______________.
_____Baccalaureate degree, in nursing______, or other field_______________.
_____Master's degree, in nursing education_____, or other_______________.
_____Doctor's degree, in (specify)____________________.
_____Other (specify)__________________________________.

COMMENTS:____

____

____

____

____.

Item 2

FLORIDA STATE BOARD OF NURSING
4415 Beach Boulevard
Jacksonville, Florida 32207

Area Code
904
Telephone
359-2541

To - Florida Registered Professional Nurses and Licensed Practical Nurses

A study of Florida's nurses is being conducted in order to aid in the planning of nurse education for the state. Both active and inactive nurses are included. An important part of this project is a profile of nurses in Florida which is being developed from a sample survey. You have been selected to participate in the survey.

Since the survey sample is only a representative portion of all nurses, it is important that each participating nurse return a completed questionnaire. Your answers to the questionnaire are important and must be counted.

Please answer all of the questions which apply to you and return the completed questionnaire in the stamped, addressed, return envelope which is enclosed for your convenience. All individual responses to the survey will be kept in confidence.

If for some reason you cannot cooperate in the study, please return the postage-free post card which is enclosed.

Thank you for your cooperation. Your help will be valuable in helping to improve nursing education. Your participation may also aid in the general betterment of nursing practice for all Florida nurses.

Hazel M. Peeples, R.N., Secretary-Treasurer
Florida State Board of Nursing

Helen F. Voss, R.N., President
Florida Nurses' Association

Marshall W. McLeod, Researcher
Institute of Higher Education
University of Florida

Item 3

FLORIDA NURSE STUDY
Institute of Higher Education
College of Education
University of Florida
Gainesville, Florida

Dear Nurse:

Sometime ago you were selected to participate in the current study of nursing for Florida. Since we have so far failed to receive your completed questionnaire, we are sending you a second questionnaire in case your first one was lost. Please complete the questionnaire form and return it as soon as is convenient using the enclosed stamped envelope. Your answers to these questions are essential to the success of the study.

Thank you for your help.

Sincerely,

Marshall W. McLeod
Researcher

Item 4

Dear Nurse:

It has been two weeks since you were sent a questionnaire and stamped return envelope for the FLORIDA NURSE STUDY.

Please complete the questionnaire and return it as soon as possible. Your responses are important for the success of this survey. Thank you for your help.

Marshall W. McLeod
Researcher

Item 5

(Side 1)

Dear Nurse:

You were recently selected to participate in the Florida Nurse Study. Our records show that no completed questionnaire has been received from you. Please mark the appropriate squares on the attached post card and mail it as soon as possible. Thank you for your help.

Marshall W. McLeod
Researcher

Florida Nurse Study
Institute of Higher Education
College of Education
University of Florida
Gainesville, Florida 32601

Item 5

(Side 2)

800048

Number 800048

Please check the squares which apply to you:

RN ☐ LPN ☐ Active Licensure ☐ Inactive ☐

Employed as a nurse ☐ Not employed as a nurse ☐

I prefer not to participate in the study ☐

I am unable to participate in the study ☐

Please send me a new questionnaire ☐

Comments: ______________________________

APPENDIX B

The Sample

Item 1: The Planned Sample, by County

Item 2: The Actual Sample, by County

Item 3: Analysis of the Actual Sample

Item 1

STRATIFIED PROPORTIONAL RANDOM SAMPLE FOR THE QUESTIONNAIRE SURVEY OF LICENSED NURSES IN FLORIDA, 1968; BY COUNTY

Total County Licensed Nurse Population Figures are Shown in Parentheses

	Registered Nurse		Licensed Practical Nurse	
COUNTY	Active	Inactive	Active	Inactive
Alachua	28 (606)	3 (74)	11 (237)	1 (28)
Baker	1 (16)	0 (0)	0 (7)	0 (0)
Bay	9 (206)	1 (25)	6 (131)	0 (10)
Bradford	1 (24)	0 (2)	1 (14)	0 (2)
Brevard	43 (938)	4 (93)	9 (184)	2 (38)
Broward	119 (2569)	13 (281)	35 (746)	3 (67)
Calhoun	1 (10)	0 (1)	1 (15)	0 (5)
Charlotte	5 (112)	1 (13)	1 (27)	0 (1)
Citrus	2 (38)	0 (7)	1 (12)	0 (2)
Clay	3 (72)	1 (20)	2 (37)	0 (4)
Collier	5 (108)	0 (9)	1 (32)	0 (3)
Columbia	6 (126)	0 (6)	2 (41)	0 (2)
Dade	253 (5446)	32 (693)	88 (1892)	9 (197)
De Soto	2 (49)	0 (7)	1 (16)	0 (1)
Dixie	1 (5)	0 (1)	0 (1)	0 (0)
Duval	77 (1659)	14 (306)	49 (1058)	5 (97)
Escambia	34 (738)	6 (134)	25 (542)	2 (34)
Flagler	1 (15)	0 (0)	0 (5)	0 (3)
Franklin	1 (15)	0 (2)	0 (9)	0 (0)
Gadsden	5 (100)	0 (10)	3 (68)	0 (7)
Gilchrist	1 (4)	0 (0)	0 (3)	0 (0)
Glades	1 (4)	0 (0)	0 (3)	0 (0)
Gulf	1 (21)	0 (0)	1 (13)	0 (3)
Hamilton	1 (8)	0 (1)	0 (2)	0 (0)
Hardee	1 (25)	0 (3)	1 (24)	0 (3)
Hendry	1 (23)	0 (2)	0 (10)	0 (2)
Hernando	2 (34)	0 (9)	1 (22)	0 (1)
Highlands	5 (115)	1 (18)	3 (54)	0 (4)
Hillsborough	68 (1460)	11 (246)	52 (1116)	5 (112)
Holmes	1 (18)	0 (1)	0 (7)	0 (0)
Indian River	6 (129)	1 (11)	2 (35)	0 (5)
Jackson	3 (73)	0 (9)	3 (64)	1 (12)
Jefferson	1 (11)	0 (2)	1 (20)	0 (1)
Lafayette	1 (3)	0 (0)	0 (3)	0 (0)
Lake	12 (259)	2 (34)	4 (94)	1 (19)

COUNTY	Registered Nurse		Licensed Practical Nurse	
	Active	Inactive	Active	Inactive
Lee	17 (361)	1 (32)	5 (99)	1 (13)
Leon	18 (391)	2 (51)	10 (207)	1 (14)
Levy	1 (19)	0 (3)	1 (25)	0 (0)
Liberty	1 (3)	0 (2)	0 (8)	0 (1)
Madison	1 (20)	0 (3)	1 (14)	0 (1)
Manatee	18 (390)	3 (56)	8 (179)	1 (32)
Marion	9 (204)	1 (32)	4 (76)	1 (13)
Martin	5 (106)	1 (16)	1 (21)	0 (2)
Monroe	6 (122)	1 (28)	2 (52)	0 (5)
Nassau	1 (30)	0 (7)	1 (13)	0 (3)
Okaloosa	9 (191)	2 (34)	3 (60)	0 (8)
Okeechobee	1 (15)	0 (1)	1 (12)	0 (0)
Orange	76 (1644)	12 (265)	29 (625)	3 (69)
Osceola	3 (62)	1 (11)	2 (42)	0 (7)
Palm Beach	77 (1659)	11 (232)	20 (425)	2 (33)
Pasco	7 (147)	1 (25)	4 (77)	1 (13)
Pinellas	140 (3009)	24 (506)	60 (1283)	8 (162)
Polk	35 (748)	5 (107)	20 (420)	2 (45)
Putnam	4 (78)	1 (14)	3 (55)	0 (6)
Santa Rosa	5 (118)	1 (14)	3 (54)	0 (4)
Sarasota	32 (687)	5 (114)	16 (341)	1 (25)
Seminole	10 (206)	1 (31)	4 (90)	1 (11)
St. Johns	6 (132)	1 (28)	3 (64)	0 (8)
St. Lucie	8 (180)	1 (31)	2 (45)	0 (9)
Sumter	1 (20)	0 (4)	0 (7)	0 (1)
Suwannee	1 (26)	0 (3)	2 (49)	0 (5)
Taylor	1 (23)	0 (4)	1 (27)	0 (0)
Union	1 (4)	0 (1)	1 (11)	0 (1)
Volusia	40 (858)	6 (129)	23 (498)	3 (60)
Wakulla	1 (3)	0 (2)	0 (6)	0 (1)
Walton	1 (28)	0 (6)	1 (12)	0 (0)
Washington	1 (22)	0 (0)	1 (16)	0 (1)
Florida	(26,545)	(3,812)	(11,457)	(1,216)
Out of State	(5,210)	(10,125)	(1,449)	(1,406)
Total Nurses	(31,755)	(13,937)	(12,906)	(2,622)
Sample Totals	1239 4.67%	174 4.56%	533 4.65%	54 9.44%

Item 2

ACTUAL SAMPLE BY TYPE OF RESPONSE

Final Questionnaire Sample Survey Tally, April 9, 1969

		Registered Nurses		Licensed Practical Nurses	
Code	County	Active	Inactive	Active	Inactive
01	Dade	245	19	87	6
02	Duval	77	10	49	3
03	Hillsborough	68	9	52	3
04	Pinellas	140	15	60	5
05	Polk	35	4	20	1
06	Palm Beach	77	9	20	-0-
07	Orange	76	8	29	3
08	Volusia	39	5	23	3
09	Escambia	34	4	25	1
10	Broward	119	8	35	2
11	Alachua	28	2	11	1
12	Lake	12	2	4	1
13	Leon	18	1	10	1
14	Marion	9	1	4	1
15	Manatee	18	2	8	1
16	Sarasota	32	5	16	1
17	Seminole	10	1	4	1
18	Lee	17	-0-	5	-0-
19	Brevard	43	4	9	2
20	St. Johns	6	1	3	-0-
21	Gadsden	5	-0-	3	-0-
22	Putnam	4	1	3	-0-
23	Bay	9	1	6	-0-
24	St. Lucie	8	1	2	-0-
25	Jackson	3	-0-	3	1
26	Osceola	3	1	2	-0-
27	Highlands	5	1	3	-0-
28	Pasco	7	1	4	1
29	Columbia	6	-0-	2	-0-
30	Hardee	1	-0-	1	-0-
31	Suwannee	1	-0-	1	-0-
32	Indian River	6	-0-	2	-0-
33	Santa Rosa	5	1	3	-0-
34	De Sota	2	-0-	-0-	-0-
35	Madison	1	-0-	1	-0-
36	Walton	1	-0-	1	-0-
37	Taylor	1	-0-	1	-0-
38	Monroe	6	-0-	2	-0-
39	Levy	1	-0-	-0-	-0-
40	Hernando	2	-0-	1	-0-

Code	County	Registered Nurses Active	Registered Nurses Inactive	Licensed Practical Nurses Active	Licensed Practical Nurses Inactive
41	Nassau	1	-0-	1	-0-
42	Martin	4	1	1	-0-
43	Okaloosa	9	2	3	-0-
44	Sumter	1	-0-	-0-	-0-
45	Bradford	1	-0-	1	-0-
46	Jefferson	1	-0-	1	-0-
47	Citrus	2	-0-	1	-0-
48	Clay	3	1	2	-0-
49	Hendry	1	-0-	-0-	-0-
50	Washington	1	-0-	1	-0-
51	Holmes	1	-0-	-0-	-0-
52	Baker	1	-0-	-0-	-0-
53	Charlotte	5	1	1	-0-
54	Dixie	1	-0-	-0-	-0-
55	Gilchrist	1	-0-	-0-	-0-
56	Hamilton	1	-0-	-0-	-0-
57	Okeechobee	1	-0-	1	-0-
58	Calhoun	1	-0-	1	-0-
59	Franklin	1	-0-	-0-	-0-
60	Glades	1	-0-	-0-	-0-
61	Flagler	1	-0-	-0-	-0-
62	Lafayette	1	-0-	-0-	-0-
63	Union	1	-0-	1	-0-
64	Collier	5	-0-	1	-0-
65	Wakulla	1	-0-	-0-	-0-
66	Gulf	1	-0-	-0-	-0-
67	Liberty	1	-0-	-0-	-0-
Totals n = 1921		1229 4.63%	122 3.20%	532 4.54%	38 3.12%

Item 3

SAMPLE ANALYSIS

Final Questionnaire Sample Survey Tally, April 9, 1969

Analysis Item	Sub-Sample Number	Percent of Sub-Sample	Percent of Total Sample
Active Registered Nurses			
Initial Sample	1239	100.00	61.95
Questionnaire Completed	1080	87.16	54.00
Moved, Out-of-State	12	.96	.60
Moved, Address Unknown	6	.48	.30
Address/Addresses Unknown	10	.80	.50
Deceased	2	.16	.10
Unable to Reply	10	.80	.50
Declined to Reply	15	1.21	.75
Total Known, Initial	1135	91.60	56.75
Total Unknown, Initial	105	8.47	5.25
Replacement Needed	159	12.83	7.95
Replacement Made	149	12.02	7.45
Final Sample	1229	99.19	61.45

Item 3 (Continued)

Analysis Item	Sub-Sample Number	Percent of Sub-Sample	Percent of Total Sample
Inactive Registered Nurses			
Initial Sample	171	100.00	8.55
Questionnaire Completed	77	45.02	8.85
Moved, Out-of-State	7	4.09	.35
Moved, Address Unknown	26	15.20	1.30
Address/Addresses Unknown	28	16.37	1.40
Deceased	3	1.75	.15
Unable to Reply	10	5.84	.50
Declined to Reply	3	1.75	.15
Total Known, Initial	155	90.64	7.75
Total Unknown, Initial	16	9.35	.80
Replacement Needed	94	54.97	4.70
Replacement Made	45	26.31	2.25
Final Sample	122	71.34	6.10

Item 3 (Continued)

Analysis Item	Sub-Sample Number	Percent of Sub-Sample	Percent of Total Sample
Active Licensed Practical Nurses			
Initial Sample	536	100.00	26.80
Questionnaire Completed	458	85.44	22.90
Moved, Out-of-State	1	.18	.05
Moved, Address Unknown	3	.55	.15
Address/Addresses Unknown	8	1.49	.40
Deceased	1	.18	.05
Unable to Reply	7	1.30	.35
Declined to Reply	3	.55	.15
Total Known, Initial	481	89.73	24.05
Total Unknown, Initial	55	10.26	2.75
Replacement Needed	78	14.55	3.90
Replacement Made	75	13.99	3.75
Final Sample	532	99.25	26.60

Item 3 (Continued)

Analysis Item	Sub-Sample Number	Percent of Sub-Sample	Percent of Total Sample
Inactive Licensed Practical Nurses			
Initial Sample	54	100.00	2.70
Questionnaire Completed	30	55.55	1.50
Moved, Out-of-State	3	5.55	.15
Moved, Address Unknown	6	11.11	.30
Address/Addresses Unknown	1	1.85	.05
Deceased	3	5.55	.15
Unable to Reply	3	5.55	.15
Declined to Reply	1	1.85	.05
Total Known, Initial	47	87.03	2.35
Total Unknown, Initial	7	12.96	.35
Replacement Needed	24	44.44	1.20
Replacement Made	8	14.81	.40
Final Sample	38	70.37	1.90

APPENDIX C

Questionnaire Comments

Item 1: Comments Which Relate to Nursing Practice

Item 2: Comments Which Relate to Nurse Education

ITEM 1

The following are comments selected as typical from among the responses made in the Florida Nurse Study survey sample which relate to the practice of nursing.

Practicing Active Registered Nurse--"I have worked at only one hospital in Florida . . . and in my opinion it was not staffed sufficiently. In the near future I hope to be employed at one of the other hospitals in the . . . area because I do prefer hospital nursing."

Practicing Active Registered Nurse--"I do only relief private duty at this time due to family responsibilities at home. As soon as my children are in school, I hope to return to more active part time status."

Practicing Active Registered Nurse--"Due to restriction on age in three area hospitals I will be forced to depend upon calls from Nursing Homes and two smaller hospitals. This will reduce my economic status greatly - since I am in good health and my work record satisfactory this does not seem quite fair to me."

Practicing Active Registered Nurse--"The salary in the . . . area is lower than other areas of Fla. as well as other states. The most difficult problem is providing adequate care for children. I would very much like to see hospitals provide qualified child care to facilitate more nurses coming back to work."

Practicing Active Registered Nurse--"Has anyone considered a 6 hour day? So we could get the children to school, go to work, and then be home when children arrive."

Employed Active Licensed Practical Nurse--"I do think the main problem and desire for the nursing profession is more pay and better working conditions. For instance our hospital charges at least $39.00 per day for semi-private room - and for that price we just do not have the nursing duties or services we should."

Active Registered Nurse Employed in Other Work--"My work in child welfare is rewarding and stimulating; however, I must confess that the nursing field continues to interest me."

Unemployed Active Licensed Practical Nurse--"I resigned because of responsibility of children at home for summer. However, I feel that many RN's look down on LPN's. They expect you to assume responsibility when short handed and then refuse to allow you to assume the same responsibility when they have adequate help. I also feel that LPN's should be allowed to give medications."

Practicing Active Registered Nurse--"Questionnaire rather interesting - hopefully it's purpose is to discover the number of nurses who are or aren't using their education to advantage but I would hope that somehow - more intense study could be given to the inadequate wage scale and the unappropriate use of professional nurses in hospital situations. Hospital Administrations need to be reeducated as to the proper utilization of the nurse. There is still much responsibility placed on the nurse that unskilled personnel can do efficiently. Hospital administrations are not being oriented to the trends in nursing education as well as they should be - who is at fault? Must we raise up in protest - or is there a logical and practical way?"

Active Registered Nurse Employed in Other Work--"In Florida, the work demands and level of education required is rewarded with low salaries. Lack of help gives no time for finding job satisfaction - only hurriedly passing pills. A nursing specialty is my answer - providing more freedom of time, greater salary - yet still maintaining the important element of direct patient care which is lost in the process of advancing through other echelons of the nursing profession. Please let me know if I can be of help to you in any way.

P.S. There is a need for schools of nurse-anesthesia in Florida. Last year Gainesville had the only one in our state - accepting one or two students a year only."

Practicing Active Registered Nurse--"I realize that $500 is an average salary in some hospitals but due to the fact that most of our recent graduates of LPN's are getting $400 a month, I feel that even a RN staff nurse should make more in comparison. Especially after 10 years in one hospital and about eight years in one unit."

Unemployed Active Registered Nurse--"It is my belief that an accredited hospital cannot afford to work on an industrial hour basis (7-10 day) schedules - a nurse is dealing with the care of the sick on a life or death basis therefore must be alert at all times - never over-tired, prone to error and lack of the best nursing care and comfort for her patient which is the end result of poor working hours. Also, I believe there should be personnel fitted and educated for their roll as director or assistant directors of nursing education on all hospital staffs. They would be in a better position along with floor supervisors who have been well educated with their college degree in nursing to handle any and all situations which may arise."

Unemployed Active Registered Nurse--"Perhaps at this it would be appropriate to mention my biggest gripe with nursing. I became a nurse to be with patients, not to sit at a desk, which seems to be a large percentage of on duty activity for a general duty floor nurse."

Practicing Active Registered Nurse--"I have enjoyed nursing very much in several fields, general duty, O.R. nurse, office nurse, industrial nursing and head nurse; recovery room. I have always wanted to teach nursing and hope [to do so] when my children are older to return to night school."

Practicing Active Registered Nurse--"At the present time our salaries are becoming improved to a competitive basis with other hospitals in the area. Fringe benefits we think are good, we are also building an active in-service program."

Practicing Active Registered Nurse--"[There is] too much rigidity in adapting to what amount of time many R.N.'s could work. Why is part-time considered all day - for 2 or 3 days? Just because a 1/2 day all week is troublesome."

Active Registered Nurse Employed in Other Work--"Please suggest to all male nurses coming into the Army that they ask for Viet Nam. My years experience there was invaluable - Stateside assignments have been very degrading as far as being respected for being a nurse."

Unemployed Active Registered Nurse--"To me hospital nursing has become too much of a secretarial job and I miss the contact with the patient. If possible will find employment outside of hospital when I return full time to nursing."

Unemployed Active Registered Nurse--"Nursing patients today is different, patient aren't considered, hospitals are over-loaded; with the help they have, patients don't get proper attention and nursing care, for what they have to pay. The nurses don't know their patients today, due to the overload of work in charting and too many patients to care for."

Practicing Active Registered Nurse--"I believe more nurses would be able to work if hospitals could set aside a day nursery area with responsible personnel in charge at a nominal [cost]."

Unemployed Active Licensed Practical Nurse--"As a Practical Nurse and recently a hospital patient - encouragement should be given to more good Indians, and have less chiefs."

Unemployed Active Licensed Practical Nurse--"My husband is in the military and I move around a lot. I haven't had a chance to work since my 3 children, five, four and two years of age. I love nursing and plan to go back on a part time basis because I don't need the money just the experience."

Unemployed Inactive Licensed Practical Nurse--"I thoroughly enjoyed Nurses Training, and I did work for a time, but I'm needed at home. I do a lot of work as a volunteer as Pink Lady, etc. Nursing is a wonderful career for young people to pursue."

Unemployed Inactive Licensed Practical Nurse--"Trust this survey will result in better training for bedside nursing, not so much responsibility on Aids. Good 3 year course seems to teach more real nursing than 4 year for B.S.I. held position as Supervisor, for . . . and . . . Hospital, during the war. Sorry I am unable to help the shortage now."

Unemployed Active Licensed Practical Nurse--"If I were to return to nursing I would want to become or at least take all RN courses that could be made available to me. A vocational school does not give adequate technical or practical information for the position an LPN is forced to take. Either their responsibilities should be reduced or education improved. I was in charge of an intensive care unit (5 patients) 2 to 8 a.m. with no RN for assistance at . . . . Until I refused the assignment on principle. They are currently staffing the unit with nursing aides which is highly unfair to the staff and patients."

Unemployed Active Licensed Practical Nurse--"I will and have done some private duty and some relief work since I retired from hospital employment."

Unemployed Active Licensed Practical Nurse--"I was employed in private duty work until my retirement last year. I intend to keep my license active in case I should want to work in the future."

Employed Active Licensed Practical Nurse--"On moving to Fla. I found LPN salary range from $265 to $325 per month in hospital. Living cost were higher (in spite of propaganda otherwise). I could not live on that salary. Consequently I had to work private duty and 7 days a week to meet basic expenses. I intend to continue my Fla. license and hope that soon you can bring your nurses pay up to a level equal to the service they render. I was raised in Fla. and like living down there, but I just can't afford it!"

Employed Active Licensed Practical Nurse--"Nurses are underpaid and overworked. In addition, LPN's are being used as housekeepers, particularly at the . . . Hospital, ... In addition, LPN's are being degraded in . . . hospital facilities by being denied the right to wear the uniform of a nurse. In brown stockings and no cap, they are indistinguishable from many other women in other occupations who wear white uniforms."

Employed Active Licensed Practical Nurse--"Working as an LPN is enjoyable to me. I hope to work until I am too old. I don't think however that raises in my salary to this date compensate for the high cost of living. This is my reason for answering the question: Do you consider this fair compensation with a No answer (re question No. 9 on previous page). LPN working conditions in Florida are much better than Mississippi. Thank you for allowing me to help you in your survey."

Employed Active Licensed Practical Nurse--"As an LPN I feel I am with my patients and give bedside care and understand the patients needs. To get someone to really listen to you and to know you know what's the patient need is another story. The patient is the one to suffer. I would like very much to finish the 12th grade, then go to Jr. College and become an RN. Maybe this way I'll be a big help to the needy ones. Not only to act quick and do the small things which are needed but also to give them the quick professional help."

Employed Active Licensed Practical Nurse--"I think the income of LPN is very unfair, because they are the ones that do the bedside care for the patient. I found this to be all so true in a lot of doctor's offices, and the hospitals."

Practicing Active Registered Nurse--"I am glad to return to nursing after being out of the field for 8 years because of the low salary scale in Fla. I enjoyed service in the ANC during WW II. Was Chief Nurse of a 1,000 bed hospital and held a Major's Com. My years in nursing were spent doing institutional work so I am now enjoying private duty and intend to do so until my health should fail me."

Unemployed Active Licensed Practical Nurse--"Having worked both as a staff LPN and as a private duty LPN and being concerned with the Sitter problem is there any way open for a classification of procedures as Nursing Acts so that unlicensed personnel caring for patients on a private duty basis can be restrained from doing nursing procedures?"

Active Registered Nurse Employed in Other Work--"Living in a resort area, having much company and finding no adequate household help, I've just procrastinated in returning to part time nursing, of course, age is a handicap plus not working for 10 yrs. in some hospitals here. I am registered in the State."

Unemployed Active Registered Nurse--"Outside of my family, nursing has always been my first love. I've never regretted being a nurse, but I prefer to retire while I'm still fairly spritely and alert and do some volunteer work for Red Cross Nursing Service (Diaster) and devote more time to my family."

Practicing Active Registered Nurse--"I work in a fine hospital. We have good personnel policies. I enjoy the work I do, but I would gladly retire now or in the near future if we could afford it. I look forward to retirement so I could be a full time homemaker and wife, of course we all have days when a clerk's job in the ten cent store sounds lovely and uncomplicated, but . . . I'm a Nurse."

Practicing Active Registered Nurse--"My interest in further education in nursing has faded. At this point my desire to retire is very strong. My interest lies in writing and the arts, and time some day soon to enjoy them. A few years ago I would have loved going to school again if for nothing more then stimulus and challenge."

Employed Active Licensed Practical Nurse--"I think the income of LPN is very unfair, because they are the ones that do the bedside care for the patient. I found this to be also true in lot of doctors' offices and the hospital."

Employed Active Licensed Practical Nurse--"In my years of nursing it has been great! I intend to help the sick, even when I retire. I have dedicated myself to the suffering, and have earned a living raising 5 children, and helping others. This is my service to God and man."

Employed Active Licensed Practical Nurse--"I became a practical nurse when my two children were grown and out of the home. My husband was, and is happy for me to nurse. He can see that I get real satisfaction from my work."

Practicing Active Registered Nurse--"The reason I feel I am not receiving fair compensation is because we are not paid according to our yrs. of experience or education. When we get a raise, we are merely brought up to base pay; so that a nurse who has just been licensed is paid as much as one who has had a few yrs. experience. The State of Fla. pays less than most other hospitals even in this state. We are not given any incentive to stay in nursing and attain seniority."

Practicing Active Registered Nurse--"The responsibilities of R.N.'s in Fla. have increased greatly during my yrs. of work much increased desk work which cuts down on time with patients which I dislike. Patients need care of R.N.'s. Pay for R.N.'s has not increased at rate of school teachers etc. and I feel our work is of much importance and responsibility. Thank you."

Active Licensed Practical Nurse Employed in Other Work--"I have worked in Central Supply for the last 8 years and enjoy my work though I admit the pay is low."

Active Licensed Practical Nurse Employed in Other Work--"I have been employed in nursing homes since my licensure because the pay is greater although I like hospital work better - I am supporting 5 people and found I had to leave nursing to do it. I hope to return to nursing when I can afford it."

Unemployed Active Licensed Practical Nurse--"I feel the pay scale is not in keeping with the hours and hard work required of a good nurse. One that has a family cannot work and pay for sitters."

Employed Active Licensed Practical Nurse--"I definitely feel that nurses are underpaid and overworked. There is a tremendous shortage of nurses."

Employed Active Licensed Practical Nurse--"I feel my monthly income is fair in comparison to other incomes of employees in the hospital where I work, but inadequate to the cost of living in Florida and the responsibility of my profession."

Employed Active Licensed Practical Nurse--"I think nursing has come a long way especially in hours, pay and hard work."

Practicing Active Registered Nurse--"I am very happily employed as office nurse to a General Practice or Family Practice M.D.; I greatly enjoy the variety of patients and plan to make a career of this if he so desires."

Employed Active Licensed Practical Nurse--"Other hospitals have raised their salaries above ours in this area. Due to evening shift and home responsibilities, time does not permit me time for school."

Employed Active Licensed Practical Nurse--"My pay is a lot better than it was when I first started."

Unemployed Active Registered Nurse--"Unless there is a definite change in our family income I only plan on working enough to stay familiar with general nursing. I have been active in nursing 18 years."

Unemployed Active Registered Nurse--"I have long desired to work as a part-time RN at my local hospital but . . . is not interested in part-time nurses so that eliminates this RN from any participation in the nursing field until my young family is of school age. Thank you for this opportunity to explain why I remain a non-working RN."

Practicing Active Registered Nurse--"I could write a lot about the deplorable conditions under which a man has to work in order to earn? a not, so decent salary, in an attempt to raise a family, especially in this state. The nursing profession is suited only for women and Hospital want to pay salaries based only on female nurses, because their salary is an extra income, supplementing what their husbands earn."

Unemployed Active Registered Nurse--"We may leave Fla. at some future date as we are very dissatisfied with the public school system and feel our oldest girl is receiving a poor education. My husband is a teacher (and trying to upgrade elementary education) but finding it very difficult. We would move primarily to better his position. I was nursing because we needed the added income, but had to quit when our youngest girl required surgery and extensive recuperation period. (But nurses too are underpaid in comparison to what their education costs - and the cost of living today.)"

Unemployed Inactive Registered Nurse--"From genera 1 duty nursing viewpoint of 15 yrs.: 1. Better educated nurses with college courses, 2. Better salaries, 3. Better In-service education for nurses and nurses aides and licensed practical nurses, and 4. Nursing programs for young people within their economic level."

Employed Active Licensed Practical Nurse--"A nurse's salary is far below average in comparison to the amount of responsibility she assumes."

Employed Active Licensed Practical Nurse--"I think general duty LPN's are much underpaid, for the amount of responsibility they carry; that's what I find around . . . and I'll go back to private duty."

Unemployed Inactive Registered Nurse--"I love nursing and miss it but feel my obligation is to my family at the present and see no way to work. Please note change of address."

Unemployed Inactive Registered Nurse--"I graduated from . . . Junior College Nursing Program, and I think it is a fine one. I did not like nursing for five months after graduation. I worked at . . . Memorial Hospital. I left it for a stewardess job with . . . Airlines. I am now married and not working. If I ever must work, I do not know if I would or could get back to nursing."

Employed Active Licensed Practical Nurse--"As an L.P.N. in the state of Florida I would like the same respect for the RN and for them to act toward us as professional people and not aides. I also would like more pay for the more the LPN does in this state. We do more work and are less paid."

Employed Active Licensed Practical Nurse--"My salary though fair is not adequate."

Unemployed Active Registered Nurse--"[I] find salary in this area no incentive to furthering [my] nursing career, after [working under the] wage scale of San Francisco."

Employed Active Licensed Practical Nurse--"I would not advise any young person to enter the field at this time. Too many fields are better paid than requiring the education of nursing. However, really not many are as rewarding. Happily for me it has been necessary income-wise."

Unemployed Inactive Registered Nurse--"I love nursing! If I had to choose a nursing program today it would still be the 3 year diploma program."

Employed Active Licensed Practical Nurse--"Since the RN's are doing more advanced work in nursing and work which doctor's used to do, why, can't the LPN be given a chance to advance and to be provided courses for them to do some too, of the work the RN's do."

Employed Active Licensed Practical Nurse--"I am speaking for myself as well as other practical nurses we do all of the work in the hospital and get less pay and are not recognized as nurses by some of our co-workers (RN's) we are really needed because we do not have enough RN's that really want to do bedside nursing and that is the new trend in nursing now. Patients get better care and they feel that they're really being cared for when they see a nurse in white giving them a bath or removing a bedpan. I love my work as a nurse but I am going to consider something else if they don't give us more money. We desire it!"

Unemployed Inactive Registered Nurse--"As an inactive nurse with small children (ages 4 and one week), I look forward to part-time employment when both children are in school."

Employed Active Licensed Practical Nurse--"I have completed 32 months of nurse's training in Poland and Budapest, Hungary. I am not qualified as an RN in this country, therefore I am working as an LPN."

Unemployed Inactive Registered Nurse--"I miss nursing very much and wish I were younger and able to take advantage of the educational opportunities offered."

Employed Active Licensed Practical Nurse--"I feel that as a LPN on staff duty in a general hospital we are given little if any room to advance plus the wage difference is too great. I've worked 11 - 7 in a small private hospital the only nurse with comp. chg. of 25-32 patients, gave all medications and treatments, maintained and prepared all I.V.'s. I'd like to add that I felt I was well trained to carry on all duties required of me and never met with a problem I couldn't handle. I think any nurse should rec'd. more for such a position and this I'd like to see happen for LPN's. If I'd be assured wages increased to meet with the extra responsibility today I'd be in some hospital on staff duty. I believe if qualified LPN's were used to this point it would greatly relieve the nursing shortage in our hospitals. Because of my keen interest to the public and desire for better and more complete nursing service I hope to obtain an associate degree in nursing and become an RN."

Unemployed Inactive Registered Nurse--"My husband travels a great deal and I feel that my children need the stabilizing effect of my being home. And though the need for nurses is very great in my area, the cost of transportation, uniforms, meals, and child care (and s/s and taxes) there is not enough monitary gain to make my absence from home worthwhile. And to me a woman's first dedication should be to home and family than to her career and service to mankind."

Unemployed Inactive Registered Nurse--"I feel strongly that a volunteer corps of retired registered nurses would be of great value. There must be thousands in my situation. I feel quite strongly about the importance of spending most of my time at home until my teenage children are in college and my working for a salary would (in extra taxes and need for household helps) probably be more curse than blessing. However, if I could take a refresher course and then volunteer my free time, I would be much more likely to return to nursing when my children are grown or if circumstances should require my earning a salary."

Unemployed Active Registered Nurse--"When I was working I felt I was overworked and underpaid which has driven me away from nursing and the patients I truly want to care for. How very disappointing. I therefore plan on returning in the future on a part-time basis."

Employed Active Licensed Practical Nurse--"I resigned from after 9 yrs. due to working conditions and salary. You work like an R.N. and get paid like an aide."

Unemployed Inactive Registered Nurse--"I don't ever expect to be an active nurse. I did institutional work until 1925, then private duty in Michigan. Also worked in X-Ray. In Florida nothing but private duty. I am 89 yrs. old. Time to quit even if I could walk."

Active Registered Nurse Employed in Other Work--"I work as a Volunteer Nurse in the Migrant Center (Pediatrics) and believe you me that is work but I love it, also 3 days per month in the school clinic, where my 9 year old attends. I certainly would like a degree in Nursing. I was not a youngster when I entered the profession, and had worked before in . . . metallurgy (testing tin plate at the Tin Mill) also served in the army in World War II, but as it is now, my husband's son expects too much of me to do all I would love to do in nursing, therefore, I do work part-time. Did in 1968 in Doctor's offices to help out and worked with the Migrant Centers here that has 75 - 100 youngsters in late Fall-Winter and early Spring. In the summer our count is from 15-35. I do hope I have helped you some."

Practicing Active Registered Nurse--"Nursing is not all I expected it to be, however, I am very grateful for the Associate Degree Program as I have wanted to be a nurse since I was 5 years old and did not have the opportunity and this program made it possible for me to have a second chance at my life's ambition. I find it very fulfilling and rewarding."

Practicing Active Registered Nurse--"I feel that nurses are the most overworked and underpaid professionals. I would not encourage anyone to go into this field."

Unemployed Active Registered Nurse--"I have had to retire from active service temporarily at least on account of poor health - arthritis and low blood pressure. I pay my dues in . . . and am in good standing in Florida. I like my profession and hope to some day rebound."

Employed Active Licensed Practical Nurse--"I personally do E.K.G.'s and have full responsibility for Employee's Health Services. Wonder if hospitals are utilizing the full potential of L.P.N.'s."

Practicing Active Registered Nurse--"I work almost full time in O.R. I enjoy nursing, but I feel that the pay is extremely inadequate - especially with 4 1/2 yrs. education with high school. However, I am unable to move at present and I would not gain from driving longer distances to go to another hospital just because the pay is a little higher."

Practicing Active Registered Nurse--"I have found that if you tell people your preference as to shift, work areas, etc., they put you on the direct opposite of that which you request, with promises of a transfer. Meanwhile, others will be hired where you wanted to work, and on the shift with a mention of your request for transfer. I have also found it to be the general rule that married people with children are given the day shift, and the rest of us are stuck on the odd shifts disregarding any social life. I would also like to return to further studies at college, and I will go in the P.M. hours. Although nursing needs people with higher educations, it is, I find, impossible to work all night and go to school squeeze in some sleep, and still learn. Yet they won't give us a chance by honoring our wishes as we do theirs. On 11-4-68 I'm starting a 9 to 5, 37 hr. a week job, with equal pay and a chance to finally work with children. Why should I stay in nursing?"

Practicing Active Registered Nurse--"Much of my time allocated for nursing is spent in conferences with supervisors. As a head nurse I find the time limited to plan for patient care and supervision of the members of my staff both profession and non-professional."

Unemployed Inactive Registered Nurse--"I will not be able to work as a nurse because of personal health problems."

Unemployed Active Registered Nurse--"My baby is due this month. I plan to return to part-time nursing in 1-2 years. I prefer hospital work and I prefer bedside nursing. My most satisfactory work experience has been premature nursing, also pediatric nursing. I like to give 100% bedside care, which is almost impossible to obtain now."

Practicing Active Registered Nurse--"I have been a state nurse in Pa, a school nurse in Pa., general and private duty supervisor (night) Pa. In Fla. in the past 11 years I've done general duty-and private duty. I feel I've done my part. I love nursing and hate to give it up, but my legs are giving out. I am against the raise for private duty nurses."

Unemployed Active Registered Nurse--"I will most probably go back to nursing on a part-time basis when my children start to school."

Unemployed Active Registered Nurse--"I've been inactive in nursing since 1953 when I became pregnant with the first of my three children. The youngest is nearly three. My husband I feel that it is better for me to stay home and raise them myself, then to work at what we consider to be a poor salary with very poor hours, and spend most of what I could make having someone else to care for me. I intend to keep my license current to avoid difficulty should I be required to return to work through some unforeseen circumstances."

Practicing Active Registered Nurse--"I feel my paycheck is adequate compensation because it is a supplement to my husbands, and the result of part-time work. If I had to support my family solely on my paycheck I doubt I would be as satisfied."

Unemployed Active Registered Nurse--"I loved being a nurse. I worked for 22 1/2 yrs. including my training, which was real hard work during the war years, and I hope to never have to go back to nursing for a living. Physically, I have a bad back, and it has not improved with age. I help my husband with all his bookkeeping, and in our 30' x 80' greenhouse - full of beautiful orchids. This is a sweet, beautiful job. I've learned to make corsages, wedding and funeral arrangements, and I'm interested in arrangements in the Japanese manner. I'm learning to type, too, and to paint. My husband is a general contractor and I'm learning about building. It is a whole new world for me and I like it!"

Practicing Active Registered Nurse--"Due to age I work only 2 days a week and then [only] because of the shortage of registered nurses."

Unemployed Active Registered Nurse--"Hospitals should be more eager to accept RN's on a part-time (one day a week or 4 or 5 hours a day, several times a week), basis. I am sure more mothers would work 1/2 days during school hours if this were acceptable."

Practicing Active Registered Nurse--"Due to the fact that starting salary was half at present salary, I feel this is adequate. However, with the rising cost of living, if I were the sole support of my family it would be entirely too small. I enjoy my work."

Practicing Active Registered Nurse--"Do we now have nurses going to high schools to talk to young women about nursing as a career? I feel we older nurses (many of us at least) need to quit but we must have more young people in the nursing field first."

ITEM 2

The following are comments selected as typical among the responses made in the Florida Nurse Study survey sample which relate to nurse education.

Practicing Active Registered Nurse--"I think there should be more refresher courses for nurses. I took part in one this spring without this course I would not be working today. I had been an office nurse for 11 yrs. without the refresher course I and others in my class would not have had enough nerve to tackle a job in a hospital of nursing home where the pace or medicine left us behind. Could a program be set up the year around on different subjects - like Doctors. We could use some of our many nurses with degrees for this."

Practicing Active Registered Nurse--"Enjoy private duty patient care - do mostly neuro-surgical nursing - find work satisfying with much better pay than hospitals - after my son finishes high school plan to take some college credit courses. Especially enjoy private duty so that I can keep up to date on nursing care, drugs, equipment, etc."

Practicing Active Registered Nurse--"I feel we need state and national funds to aid the three year nursing graduate increase her learning. (on a loan basis)"

Employed Active Licensed Practical Nurse--"If there were any scholarships available for continued study, I would like to take the Junior College 2 year course to earn an R.N. degree."

Practicing Active Registered Nurse--"If nurses are supposed to be able to do bedside nursing, then don't do away with diploma nursing schools."

Practicing Active Registered Nurse--"Would like to be able to attend a course on Student Instruction methods, etc. as an RN in O.R. We are expected to teach procedure to inexperienced RN's so would like to have a formal class in that subject."

Practicing Active Registered Nurse--"Planned courses [are needed] for reg. nurses in the area of operating room staff nurse and operating room supervisors; either or both in general surgery or special fields, with the state of Fla. P. Q. courses for nurses graduating from AA degree programs that are interested in Dept. of Surgery."

Practicing Active Registered Nurse--"At the present time, I am not able to further my education because of family obligations (small children) maybe at a later date I will be able to do so."

Practicing Active Registered Nurse--"I think educational opportunities should be mandatory and a nurse should receive her salary while attending school, workshops, or credit college courses. I attended a four week college credit course at the . . . University and I lost a month's salary."

Practicing Active Registered Nurse--"Due to family responsibilities plus the 8 hr. work day [I] have had no time for college courses. This would mean a 60 mile drive to Jacksonville, Lake City or further to Gainesville. However, I plan to work toward a degree when I am in a financial position which will allow me to take a leave of absence from my job or either to work on a part-time basis."

Inactive Registered Nurse Employed in Other Work--"Would be most interested in getting a degree in nursing and then to teach or do administrative work. I would also like a refresher course in anesthesia."

Unemployed Inactive Registered Nurse--"At present I would probably only return to work if my husband was incapacited or deceased, in such a case I might be interested in refresher courses, further education, etc."

Employed Active Licensed Practical Nurse--"I would like to complete high school and become an RN. I do feel that the training I have had, and the experience I have should account for something toward becoming an RN. There isn't too much today that an RN does that an LPN doesn't do."

Practicing Active Registered Nurse--"Would love to get a BS degree in Nursing but the credits I have accumulated are so few, it would take forever at night school."

Unemployed Active Licensed Practical Nurse--"Would like a hospital refresher course too keep up with latest hospital procedures."

Employed Active Licensed Practical Nurse--"I love nursing and I'm glad I decided to take the RN course. However I think the 2 yrs. program should be more realistic. We don't get enough experience in the type of work we will be doing. Some things we're taught are outdated. But the thing that upsets me the most is that with the big shortage of nurses, the schools act like they are out to get rid of as many as they can. They get the student so disgusted, etc., and I feel they loose some good nurses just because they get fed up with the unfairness of the grading system, etc. Also they seem to dislike LPN or experienced aides. They downgrade them and give them a rough time."

Employed Active Licensed Practical Nurse--"I have enjoyed Nursing for the past 16 years. I consider it a very challenging career. Now that my children are educated I plan to finish high school and go on to be an RN. I enjoy every bit of my work."

Employed Active Licensed Practical Nurse--"I really have very little free time to consider furthering my education unless there would be some way I could complete my professional training and continue to work at the same time."

Practicing Active Registered Nurse--"I feel that good refresher courses have been very limited or non-existing in Florida. Nurses that have been inactive for a number of years have a difficult time in Florida. Good in-service training and orientation courses are lacking in the hospitals."

Employed Active Licensed Practical Nurse--"I have taken upwards of 12 to 15 refresher courses over the years, none of which were recognized, that is, accredited by the state nursing association. I feel that these courses should be recognized and I should be given credit for each by the State Board of Nursing Education."

Employed Inactive Registered Nurse--"[I] am glad to be of service. After eleven years of inactivity [I] find it difficult without some type of refresher. [I] wish more were possible. [I] never plan on leaving again."

Unemployed Active Licensed Practical Nurse--"If I am not able to return to work as a LPN, I would like very much to become a medical secretary."

Unemployed Active Licensed Practical Nurse--"After 14 years of general duty, bedside nursing, I feel my knowledge has gone down. Also, my legs are breaking down. Plan to take a General Clerical Course this year in order to work in a Medical Clinic or Doctor's Office."

Unemployed Active Licensed Practical Nurse--"It is my intention to eventually attain a R.N. status. I find nursing as an L.P.N. somewhat difficult out of the state of Florida. In general the L.P.N. is overworked performing the less desirable chores rather than complete patient care. I desire the change to R.N. to upgrade my abilities and to insure people that my capabilities exceed giving enemas."

Practicing Active Registered Nurse--"A refresher course held in . . . recently was, I thought, a lot of red tape to go through just to brush up on nursing. For example, physician's examination, interviews, etc. Also the hours were bad for those who have children. I find nursing home care much more satisfying to me because I enjoy bedside nursing and adore sitting at a desk and not knowing what my patient is doing or needing."

Practicing Active Registered Nurse--"Plan to obtain Associate Degree in Data Processing in junior college and combine it with nursing in the future."

Practicing Active Registered Nurse--"When time permits with raising a family I hope to return to school, at least night school."

Unemployed Active Registered Nurse--"When I have worked, it has been part-time, but I still have been put in charge of the floor. Is there any courses offered to help new nurses in floor management? I have been out of school for ten years, and have only worked part-time. It isn't the actual new nursing principles and practices that overwhelm me, but the dread of having to be in charge with no experience or not enough experience in floor management."

Active Licensed Practical Nurse Employed in Other Work--"I would consider taking an LPN or even specialized course in a new plan of nursing if there were those offered near me. I should like to be in Civil Service. My education is limited and my studies are both limited and outdated. Now I do Mother and Baby Care when available."

Practicing Active Registered Nurse--"Local lectures and meetings unavailable to me."

Unemployed Active Registered Nurse--"I believe the biggest quiver is that one is never paid for experience or education. All RN's start on the same basic rate. Some one with 29 yrs. experience who likes and does bedside nursing gets the same salary as an RN just out of training, and since some Fla. schools are only 2 years this is ridiculous. I have 5 friends all of whom come from right regarded diploma schools of nursing (36 months) three will never return to nursing in Florida, but would do anything else. One has returned to school for a B.S. in elementary education, and the other is returning for a master's in another field. I suspect someone is using this type of questionnaire to secure information for an advanced degree. Good luck and more power to you!"

Employed Active Licensed Practical Nurse--"I am presently a student at . . . Junior College graduating in April. I have worked part time until recently as general duty nurse in the local hospital."

Practicing Active Registered Nurse--"I wish more refresher courses were offered part time workers who have little opportunity to learn new procedures and new equipment. Hospitals also tend to hire part time when nothing else is available and let them go when they get more full time help."

Unemployed Inactive Licensed Practical Nurse--"Thank you for allowing me to participate in the survey. I have been planning to attend refresher courses and any other courses to make my nursing practice improved."

Unemployed Inactive Licensed Practical Nurse--"I plan to enter a junior college and receive my R.N. degree when my children enter school."

Unemployed Inactive Licensed Practical Nurse--"Family responsibilities keep me from doing what I desire most, that is, completing my training to become a Registered Nurse."

Practicing Active Registered Nurse--"For a nurse who has a family it is very difficult to advance your educational desires. If you must work full time it is almost impossible unless you take a permanent night or evening tour. This is especially true with VA nurses."

Practicing Active Registered Nurse--"Though our hospital has a good in-service training program; working nights, it is very hard to take part in it. I took the refresher course in . . . County and would like to know of other evening classes that I could participate in. Having served in a hospital for 24 years, I know the value of short courses or our summer institutes. Could something of this order be used?"

Employed Active Licensed Practical Nurse--"I have been going to . . . Junior College trying to prepare for a nursing education (R.N., 2 yrs.), but I have four children at home in school. Therefore, I have to work during the day and commute two 3 miles round trip to class at night and it is very hard."

Employed Active Licensed Practical Nurse--"I now am 65 years old and still working and in good health. I hope to keep working as long as possible. I would love to take some college courses, though perhaps I'm too old now."

Active Licensed Practical Nurse Employed in Other Work--"I feel that it is vital for refresher courses, workshops and conferences as well as other educational material and courses be provided to the LPN. The in-service education graciously provided by some hospitals is not sufficient to meet the needs of a well prepared, competent LPN when so many demands are made for new and varied procedures."

Active Licensed Practical Nurse Employed in Other Work--"I would go back to nursing if I could be enrolled in a refresher course. It has been too many years since I left nursing to feel qualified."

Employed Active Licensed Practical Nurse--"I would like to take the two year R.N. training, but cannot afford not to work as I support two children."

Employed Active Licensed Practical Nurse--"[I] would like to take night courses to complete the Associate Degree in Nursing."

Employed Active Licensed Practical Nurse--"[I] would attend refresher courses if any were available for LPN's or if we were eligible to attend the RN courses."

Employed Active Licensed Practical Nurse--"I think the 2 year AA degree graduate should be allowed into the service (air, navy, etc.) with a commission, along with the 3 year graduate."

Unemployed Active Registered Nurse--"Nursing education opportunities in this area are few. Those available did not meet my philosophy of nursing nor do they offer compensation commensurate with hours required. The working hours and outside activities required do not allow time for being a mother and wife."

Employed Active Licensed Practical Nurse--"As a nurse I do think workshops, conferences, refresher courses and visitations to health centers, educational centers and agencies would be most helpful to the nurses. We could broaden our training by participation in the training of the more modern and changing techniques of nursing care."

Employed Active Licensed Practical Nurse--". . . The Practical Nurse School should be extended to a year and half with a medication course. I would like to see a place where practical nurses could go for a refresher course. I am now taking the 2 years Associate degree of nursing at . . . Junior College."

Employed Active Licensed Practical Nurse--"Why don't they hire enough R.N.'s so they can do some bedside care and why won't R.N.'s help L.P.N.'s do bedside care when they do have time instead of sitting on their cans. What is the use of all this big mess you are doing . . . [study of nursing]. Higher education, my foot, you better start making them use a little bit of this education that they have already passed through, who can't pass a few pills and give a few shots. Yes I want to go to RN school - double my salary and do half as much work!"

Employed Active Licensed Practical Nurse--"I think there should be a school in Florida which gives you credit as an LPN to continue in school to become an RN if desired. As it is someone who has never been in a hospital gets the same credit as an LPN who surely knows more and should at least get 1 year credit."

Employed Active Licensed Practical Nurse--"I believe that those who are interested in bettering their education should receive more consideration in pay increases than those who have obtained their license by waver and do not try to take any refresher courses to keep up with present day changes."

Employed Active Licensed Practical Nurse--"I would love to further my education in one of this State's Junior Colleges in the very near future."

Employed Active Licensed Practical Nurse--"As I am an LPN, which I am very proud of, I know and understand my limitations and respect the RN for what she stands for. She has such a load to carry. There have been many times that I could have been capable of carrying out procedures if I had been allowed to do so. The RN also stated she did not see why we [LPN] could not do so. It would help if this could be revised or perhaps have some in-service training to better qualify theLPN for this."

Practicing Active Registered Nurse--"I would like a B.S. in Nursing, but I cannot apply many of my earned college hours toward this, so the field of Sociology could be completed in two years thus costing me less time and money."

Practicing Active Registered Nurse--"As much as I would desire higher education I am unable at the present time to further my education because of family responsibilities and full time employment."

Practicing Active Registered Nurse--"[A] master's degree in psychiatric nursing should be available in cosmopolitan area of Miami."

Practicing Active Registered Nurse--"I find that through our program of in-service education my knowledge has been added to considerably. If I desire other educational opportunities there are many offered in adult education at . . . Junior College as well as in-service programs. Therefore, I feel that I as a person can afford to pick whatever subject I desire."

Practicing Active Registered Nurse--"At my age I do not expect to further my education other than in-service programs and such."

Practicing Active Registered Nurse--"I have looked forward to being helpful with my psychiatric background in a mental hygiene clinic or the like--this is after I realized that I had been away from active general hospital too long to return to patient care, etc. I did have a refresher course at . . . College in 1966, but I was unsuccessful in General Hospital Nursing, too old."

Practicing Active Registered Nurse--"[I] would like to see more Baccalaureate degree programs in nursing through the State to meet the needs of the married nurse and especially the girl who has a family."

Employed Active Licensed Practical Nurse--"I am now enrolled in . . . Jr. College in hopes of some day attaining an AA Degree in Nursing."

Practicing Active Registered Nurse--"I'm very anxious to continue my education but of course with a full time job, a husband and 2 small children, I can't go full time. I have had 3 years experience with open heart surgery, and 2 years with hemodioysis, plus my present job (6 months) in the intensive care unit of Miami Heart Institute. I feel I should be able to get some credit for my experience and training. As it is, it could be up to 4 years before I'm advanced enough in college to ever think of taking nursing courses. At that rate it could be up to 12 years before I get my degree. I certaining feel that people with that type experience would have more incentive to go back to school if they didn't have to start the same place the kids fresh from high school start!"

Active Registered Nurse Employed in Other Work--"I am a student (School of Education) . . . . I am on the Dean's list, Senior Class. I am interested in either teaching handicapped children or being a school nurse and teaching Physical Education."

Practicing Active Registered Nurse--"I work in Surgery and our hospital is planning a whole new Operating Room suite. It should be interesting to see what changes occur and how well we all adjust. At that time I will probably have some thought on further training or refresher courses. Right now I am in a comfortable rut."

Practicing Active Registered Nurse--"My work, until this last case, is usually 3-11 P.M. I find it quite difficult to attend many lectures, since most of them are in the evening, however, recently there are a few classes,etc. in the mornings and evenings."

Practicing Active Registered Nurse--"Family responsibilities make it impossible for me to participate in educational programs other than those associated with my position."

Employed Active Licensed Practical Nurse--"I have been very happy with my experiences as an L.P.N. I have especially enjoyed my employment at . . . Memorial Hospital, and the on-the-job training which has proved most valuable and stimulating."

Practicing Active Registered Nurse--"The most outstanding nurses I have known in the past 20 years were diploma graduates who later earned a BA degree or higher. I will be very sorry to see this way of nursing become outdated."

Practicing Active Registered Nurse--"I strongly recommend the converting of 2 years Junior College programs into 2 years hospital trained programs, as seen in my experience of teaching the routines and procedures carried out in a very busy pediatrician's office. I found 3 or 5 RN's employed within a 5 year period were Junior College trained and greatly lacking in experience of accepting responsibilities involving the making of decisions based on the knowledge of good practical experience which I feel a 2 year program trained nurse does not receive. In an office such as ours with treatment of ages from several days to 21 years old and involving the treatment of routine childhood diseases, diabetes, TBC, cast applications to cardiac attacks in a 10 day old infant to list only a few, practical bedside hospital experience has no substitute. Thank you for offering me the chance for voicing my opinion. I know many nurses and doctors who share my view."

Practicing Active Registered Nurse--"[I] would desire doing more bedside nursing but don't like the attitude of 2 year graduate nurse who has very little experience and so ready to give advise of which she has very little knowledge. Nurse aides should be closely supervised and in-service programs should do follow-up work on all aides to relieve the charge nurse who very rarely has time to check on aides. This is all very disturbing to the order nurse who has done and loved bedside nursing."

Practicing Active Registered Nurse--"Operating Room need professional nurses. [I] would like to see more time included, at all levels of nursing, in curriculum planning for operating room experience."

Practicing Active Registered Nurse--"I don't approve of the four year Nursing Schools at the Universities because of the lack of practical experience. I think for what it is worth, that a good 3 year school is much better preparation for nursing and there if you wish you can always get the B.S."

Employed Active Licensed Practical Nurse--"[I] would like very much to continue my education toward a R.N. degree. Due to lack of finance I am at present unable to do so."

Employed Active Licensed Practical Nurse--"I plan to attend . . . Junior College, 1969, in the 2 year nursing program at . . . Florida."

Practicing Active Registered Nurse--"I am very disappointed that there are three different types of education for a nurse--all affording a R.N. I am more so disappointed that since the ANA has advised and recommended that all RN's have BS degrees it has become harder for a diploma graduate to go back to a college. Most nurses would go back to college to get a degree in something other than nursing because of the following facts: A. Once you're a nurse you're always a nurse (or a dime-store clerk), B. The only field of nursing that pays decently is hospital nursing and time available for family and or social activities is hindered because of 3 shifts and weekend work. C. Only the duty nurse is idealistic in her patient care - the administrations are just that clean nurse each day and out of patient contract so as to not want idealism and good patient care."

Employed Active Licensed Practical Nurse--"I am very interested in learning more about nursing. If I could get accepted and could afford it financially, I would very much like to go to a 2 years R.N. program. In the meantime, I enjoy in-service courses and working as an LPN."

Practicing Active Registered Nurse--"At the present time I plan to begin carrying one course at a time towards a B.S.N. Eventually I hope to earn a Master's degree in Child Psychiatry (nursing)."

Practicing Active Registered Nurse--"It certainly would be helpful to have a Master's Degree Program (in nursing) centered in Central Florida. The other states certainly benefit from our grants and funds."

Active Registered Nurse Employed in Other Work--"Should the situation ever arise I would like very much to combine interests and do more in the nursing area. The only refresher course I have taken was one in my primary speciality--psychiatric nursing. This was very interesting."

Employed Active Licensed Practical Nurse--"I would like to attend . . . Junior College for an Associate Degree RN, but my financial responsibilities are too great."

Employed Active Licensed Practical Nurse--"I am satisfied to be an LPN, and would like to be kept posted on the latest in nursing procedures, and medications. I just finished a course in medications and thoroughly enjoyed it."

Practicing Active Registered Nurse--"I have recently begun taking college courses toward my degree. I think the amount of credit (7 hours) given for 3 years (including 3 summers) of nursing school is most discouraging to many diploma graduates who would like to get their degrees. I plan to continue nursing but refuse to waste my time and money sitting through basic nursing courses again, which I have already proved by my state board examinations that I know the materials as well or better than those in the degree programs. So I plan to pursue a course for a B.S. in Psychology and if this should draw me into another line of work, so be it."

Employed Active Licensed Practical Nurse--"I would have loved to finish nursing education for an RN but due to raising a family alone, and finances, it has been impossible. Nursing always has, and always will be the only kind of work for me."

Practicing Active Registered Nurse--"I would welcome the opportunity of completing my desire [for] education without having to disrupt my family life - which is what has kept me from doing so."

Practicing Active Registered Nurse--"I work in the operating room, which is why I do not have much personal contact with patients. I would like to continue my education at some time, but I have no definite plans now."

Employed Active Licensed Practical Nurse--"A plan [is needed] whereby an LPN nurse may continue her education toward an RN degree and (or) a field of specialized nursing."

Employed Active Licensed Practical Nurse--"I wish there was a rehabilitation course offered for LPN's. Thank you for sending me this survey sample."

Practicing Active Registered Nurse--"My education has been continuous throughout the years. I have audited many classes because I needed the information but could not afford a credit course. After educating two children (now in their early thirties) my work became so demanding that I gave up the idea of ever earning a Baccalaureate degree."

Employed Active Licensed Practical Nurse--"[I] want very much to become a RN either by Junior College 2 yrs. course or by finishing a 3 yrs. course at an accredited 3 yrs. hospital program. [I have] no funds to do so at this time."

Practicing Active Registered Nurse--"My first love in nursing is hospital nursing which I would return to, but after 28 years in nursing, I feel the tensions and frustrations encountered are too great and the compensation too small. There are many reasons for this, but I believe the greatest is the lack of adequately trained RN's in the hospitals. And again this is the result of the low pay scale. The well trained LPN is good in her field, but many are without ethical background and thorough training thereby causing more problems for the few RN's in the hospitals."

Employed Active Licensed Practical Nurse--"I am in the process of attending Jr. College to be able to complete the 2 yrs. program, and to take my State Boards to become a Registered Nurse. I am working full time as an LPN and taking as much college load as I can to be able to complete the required courses for completion of the 2 yrs. college program."

Unemployed Active Registered Nurse--"I feel the in-service education of nurses in any institution needs co-ordination and that resource material be compiled. [I] also feel that perhaps in-service education may be accredited or non-accredited in the future to up-grade and for credit for these programs on a minimal level."

Unemployed Active Registered Nurse--"I would enjoy working part-time as a nurse if I felt that I were qualified. Not having been employed as a nurse since leaving the Army Nurse Corps in 1945, I would need a refresher course, more education, etc. Recently, I became a volunteer red cross worker."

Practicing Active Registered Nurse--"I feel we need more workshops and education in the field of Geriatrics, stressing the importance of keeping these people a member of society, not simply maintaining a viable body."

Practicing Active Registered Nurse--"My only concern is the state of nursing education as it is today. The student nurses do not receive enough practical experience in Surgery, OB or any of the special services. They are overly protected, they do not have enough contact with doctors, nurses or other hospital staff to prepare them for what lies ahead."

APPENDIX D

Sample Implications and Recommendations from Four State Studies of Nursing and Nursing Education

Item 1: Colorado

Item 2: North Carolina

Item 3: Ohio

Item 4: Vermont

Item 1

COLORADO

The following was taken from Toward Statewide Planning for the Education of Nursing Practitioners in Colorado (15, pp. 5-17), [all emphasis deleted].

The number of registered nurses in Colorado is not adequate to fill the budgeted positions in hospitals, nursing homes, and schools of professional nursing, nor to bring the ratio between public health nurses and population to recommended standards.

* * *

The number of licensed practical nurses in Colorado has increased markedly but is still inadequate to fill the budgeted positions in hospitals or to displace any of the nursing aides, many of whom are performing functions which should be carried out by licensed practical nurses. These aides lack the knowledge and skill essential to adequate performance of practical nursing functions.

* * *

The need for more registered nurses on the staffs of hospitals is evident, but the cause of that need is not the abandonment of the hospital as a field of practice by registered nurses.

* * *

Although the rate of increase in professional nurses in Colorado exceeded the population growth rate during the 1950's, there is indication that the reverse may be true in the 1960's--unless steps are taken to accelerate the rate of increase in the number of registered nurses in active practice in the state.

* * *

Increase in the rate of admissions to short-term general hospitals has probably been occasioned by a number of changes in our society. Although this problem is separate from the purpose of the present study, a relationship exists since increased hospital usage makes additional demand on the nursing resources of the state.

* * *

A simple ratio between the number of professional nurses licensed and the population is misleading. Some of these nurses contribute to meeting Colorado's need for only part of the license period, or only part-time, and their knowledges and skills are not always effectively utilized.

* * *

Licensed practical nurses, who are graduates of approved schools, should not be considered substitutes for professional nurses, but rather as replacement for the nursing aides who are now performing nursing functions rather than duties supportive to the licensed professional or practical nurse.

* * *

The rate of recruitment into schools of nursing was only one-half as large in 1960 as in 1950.

* * *

The girl high school graduates of the previous spring have remained the largest source of recruits into schools of professional nursing each academic year--the declining rate of enrollment from that group has not been compensated for by attracting either the girl high school graduates of previous years or males.

* * *

The unfavorable salary position of professional nurses and the lack of adequate increments make it difficult for nursing to compete with other profession and/or vocations in attracting potential professional nurses into its schools.

* * *

Responsibility for over one-half of the preparation of basic professional nursing students in Colorado currently rests with the hospital diploma schools. The system of higher education in Colorado provides, however, for the education of all the students preparing for entrance into other professions.

* * *

Most of the educational preparation for practical nursing in Colorado is within the system of vocational education.

* * *

It appears that hospitals have been most generous in making their clinical facilities available for the clinical experiences of professional nursing students when those clinical resources and facilities have been acceptable from the standpoint of the educational needs of students.

* * *

The availability of the essential four resources [educational institutions, clinical facilities, funding, students] are the best criteria to be utilized by a community interested in providing or expanding facilities for professional nursing education.

* * *

Planning is essential to the successful expansion or establishment of schools of practical nursing. Adequate resources must be available if the venture is to prove successful.

* * *

Use of this method [of community involvement] has resulted in the establishment of the associate degree program in professional nursing at Mesa College, and the anticipated programs at Colorado State College and Southern Colorado State College.

* * *

The School of Nursing of the University of Colorado currently provides a program in which the diploma school graduate may earn a baccalaureate degree, and a graduate school program in nursing. Both programs are helping to meet a vital need. As new baccalaureate programs are established in the state, they should possibly give thought to provision of programs in which the non-degree nurse could earn a baccalaureate degree.

Item 2

NORTH CAROLINA

The following was taken from Nursing Education in North Carolina; Today and Tomorrow (63, pp. 87-94) [all emphasis deleted].

Assumptions:

1. [The] total attractiveness of [the] nurse working situation will improve. . . .
2. Nursing education program will improve. . . .
3. Recruitment of nurse students will increase. . . .
4. Nursing education output will increase. . . .
5. [The] return of inactive nurses to [the] profession will increase. . . .
6. Nursing responsibilities will change. . . .

Recommended Courses of Action:

1. [To] intensify student recruitment. . . .
2. [To] expand enrollment in adequate programs. . . .
3. [To] upgrade inadequate programs. . . .
4. [To] expand continuing education and refresher course programs. . . .
5. [To] phase out programs with 50 percent of graduates failing over a period of three years [in] the licensing examination for nursing. . . .

6. [To] expand graduate nursing education programs.

. . .

Recommended minimum standards:

1. . . . It is strongly recommended that the following standards be met by nursing education programs. A practical nursing program should use a hospital with at least a minimum daily average census of 60 patients that has at least an operating room, a delivery room, a clinical laboratory, and diagnostic X-ray. A diploma or associate degree program should use a hospital with an average daily census of 150 or above and with seven or more facilities. Baccalaureate programs should use hospitals with an average daily census of 300 or above and having 12 or more facilities.

   . . .

2. Enrollment in a nursing program should insure a ratio of at least five patients to each student receiving clinical experience in a given area or department of the training hospital at a given time. . . .
3. Only under unusual circumstances should one hospital be used simultaneously by more than one program for registered nurses. . . .
4. No program should be established in the absence of the availability of a primary hospital meeting the criteria on size and facilities. . . .

5. The educational attainment of a faculty member should be at least one level more advanced than the level of nursing which she teaches, but not less than a baccalaureate degree.

Need for continuing study:

Successful planning must be accomplished by continuing evaluation and adjustment, to meet changing needs for nursing services, there should be an on-going reappraisal of nursing education.

Item 3

OHIO

The followingwas taken from Implications of Population Trends for Nursing Education in Ohio (72, p. 51).

> Similar [to that for other programs] planning should be underway in expanding facilities in nursing education. This field of study is one of the many fields offered by colleges and universities but most of the education for nurses is offered by institutions other than colleges and universities. Educational needs in this field in the next decade have therefore received little attention. Because nurses are so vital to the physical, mental, and social well-being of Ohio's citizens it is highly important that the nurse supply be kept at a high level. This can be done only if there are sufficient and adequate facilities in which increasing numbers of young women can obtain the needed training. [A plan for the development of nursing education in Ohio follows.]

Item 4

VERMONT

The following was taken from Nursing Needs and Resources in Vermont, 1966-1975. A Report to the People of Vermont (85, pp. ix-xvii) [all emphasis deleted].

Recommendations:

1. That better utilization of nurses be made which will permit the nurse to function at the optimum level of her nursing ability.

* * *

2. That professional nursing supervision in nursing homes be adequate to insure quality of care.

* * *

3. That salaries and conditions of employment be defined and provided the registered nurse and the practical nurse based upon the stated requirements, qualifications, and responsibilities of the position.

* * *

4. That a state-wide plan for nursing education in Vermont be developed by the Vermont State Nurse Association, Inc. in appropriate organizations, agencies and community leaders.

5. That graduates of associate degree and diploma schools of nursing who are in leadership positions seek baccalaureate level preparation and that the University of Vermont be encouraged to admit these graduates to the baccalaureate program of nursing.

* * *

6. That the program of continuing education at the University of Vermont be maintained and expanded.

* * *

7. That more monies be appropriated by the Vermont General Assembly to the Vermont Student Assistance Corporation to provide more financial assistance for students entering basic nursing education programs in the State and to assist registered nurses seeking preparation at the baccalaureate level.

* * *

8. That the Vermont State Nurse Association, Inc. assume leadership in the formation of a Health Careers Council to recruit high school graduates into health careers and to promote the return of inactive health personnel to the work force.

* * *

9. That an evaluation of the extent to which these recommendations have been implemented be made

by [the] Vermont State Nurse Association, Inc. during 1970 and that additional recommendations be made as indicated.

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BIOGRAPHICAL SKETCH

Marshall W. McLeod was born in Albemarle, North Carolina, on June 15, 1941 and is the son of Mr. and Mrs. Marshall R. McLeod of Mt. Pleasant, North Carolina. He attended school in Mt. Pleasant, North Carolina, through high school. He received his Bachelor of Arts degree in history with a psychology minor from Pfeiffer College, Misenheimer, North Carolina, in September, 1965.

He received the Master of Arts in social science and education from Appalachian State Teachers College, Boone, North Carolina, in June, 1966. He worked as a graduate assistant and as a student instructor in the History Department while a student there.

In the fall of 1966, he entered the Advanced School of the College of Education at the University of Florida largely because of opportunities provided by a W. K. Kellogg Fellowship in the Junior College Leadership Program. He received the degree of Specialist in Educational Administration and Supervision in June, 1967. As a part of his doctoral program, he worked under contract as assistant to Dr. Joseph W. Fordyce, president, Santa Fe Junior College.

He is a member of North Carolina Epsilon chapter of Phi Gamma Mu, the national social science honor society. He is a member of Beta Pi chapter of Phi Delta Kappa, educational leadership fraternity; Upsilon chapter of Kappa Delta Pi, educational honor society; and of Alpha chapter of Phi Epsilon Pi, national fraternity.

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This dissertation was prepared under the direction of the Chairman of the candidate's supervisory committee and has been approved by all members of that committee. It was submitted to the Dean of the College of Education and to the Graduate Council, and was approved in partial fulfillment of the requirements for the degree of Doctor of Education.

September, 1969

Dean, College of Education

Dean, Graduate School

Supervisory Committee:

Chairman